

# THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

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## Sketches of Farms.

### The Farm of W. A. Hayes, Esq.

(Concluded from page 82.)

EDITORS OF THE CULTIVATOR—In a former communication, I proposed to speak further of Judge HAYES' farming, under the following heads:

**MANAGEMENT OF THE ARABLE LAND.**—As the lands yielded nothing at the time of Judge HAYES' purchase, the first object was to place them in a state of productiveness as soon as possible. He therefore commenced by plowing up a large tract each year, putting on all the manure that could be scraped together, by a careful collection and saving of every available material. The fields were planted to hoed crops but one year, and the next spring stocked to grass with spring grain. The main idea was to enrich the lands as fast as possible; and to accomplish this, he wished to plow as often as was practicable,—thus availing himself of the great quantity of vegetable matter contained in the sod, for the improvement of the soil. The land was prepared for seeding by loosening and leveling the surface with a heavy harrow, without again bringing to day the decomposing sod. After having gone over all the arable lands once in this way, he then commenced again, by plowing up smaller fields and manuring more heavily. This he could now do, for the increasing produce and stock enabled him to enlarge the compost heaps. Since that time, not less than twenty loads of compost, of 50 bushels each, have been applied to the acre.

The sward-land is plowed in the fall—it being the most convenient time to do the work—to the depth of 6 or 8 inches, and the following spring, 20 loads or 10 cords of manure to the acre, are spread upon the surface and thoroughly harrowed in. Each load is divided into 8 heaps, a rod apart every way, which just does it. The distance at which the heaps should be placed, is regulated with sufficient accuracy, by noting the distance from the hind end of the cart to the forward feet of the cattle. The field is planted to corn, potatoes, and the various root crops one year, and the next spring a large heavy harrow, with sharp cultivator teeth, instead of the common harrow teeth, is passed several times over the land, both ways, leveling and mellowing the surface, without disturbing the sod underneath. Spring grains, with a generous supply of grass-seeds, are then sowed, and the work finished with a large roller, some four feet in diameter. In this way, the grass-seed has never failed to take well, and give a good crop, the second year, for over twenty years.

Great attention is paid to clean cultivation, it being believed to be a saving of labor, in the long run. Of course, no weeds are permitted to rob the hoed crops of nutriment, or spread their ripened seeds upon the land. The root crops, particularly the carrot, are highly esteemed as succulent food for the stock in the winter. Several hundred bushels are annually raised,

the ground for them being prepared by plowing a part of the manure under the sod, and harrowing in a part upon the surface. The corn-stalks are not cut until the ear is pretty well ripened; and the butt-stalks are carefully secured under cover, with alternate layers of straw, which prevents too great degree of mouldiness, and renders the whole quite palatable to the cattle in the coldest weather of winter. The average cut of hay has been upwards of 100 tons, for several years. About half of it is consumed upon the farm, and the balance sold. This fact, in contrast with the one stated in my former communication, that "these lands originally produced only hay enough for the wintering of 6 or 8 head of cattle," would seem to render superfluous all comment upon the efficacy of Judge Hayes' mode of culture, in enriching his soil.

**IMPROVEMENTS BY MIXING SOILS.**—As before stated, the farm extends over a high swell, with lowlands on each side. These lands abound in clay, containing, by analysis, 5 per cent. of lime. Considerable has been done in the business of carting the clay on to the sandy soil and the sand on to the clay, and this mixture has been attended with very satisfactory results. The staple, or chemical constitution of each soil, is altered and improved by the admixture, and it is thought that another advantage, equal if not greater, arises from thus covering up the vegetable matter of the sward on the land so dressed. There are some fields on the farm which are not conveniently located to plow, plant and till, and on these it is found that by spreading a thin covering upon the surface, a good deal of the vegetable matter of the old sward is rotted, the binding out of the grasses remedied, a new and far more vigorous vegetation starts up through the covering, and the productiveness of the land is much increased. Judge Hayes would confidently recommend this practice as deserving of attention. The work is done at odd jobs, as spare time may be found; usually after haying, and until late in the fall.

To me, this is quite an interesting matter. My attention was first called to it by an operation of the kind which occurred on my land, without my instrumentality, and at the time, against my wishes. A temporary, but quite powerful stream of water was suddenly formed, and came pitching over a sand bank, bringing the sand along with it, and distributing it over an acre or more, from one to two or three inches thick. The land, a fertile brown loam, had never been plowed, and the grass had formed a very thick and tight-bound sward. In so far as the covering was concerned, it was composed of a coarse sand, and I have no idea, to this day that it was possessed of fertilizing properties in itself. I regarded it with much suspicion, as it lay spread over my grass-plot. It was suffered to remain through the season, however, and contrary to my expectations, a new and most vigorous vegetation started up through the covering, with which I was well pleased. There was more value in grass upon the patch, for four years

following, than I had before seen upon it. A portion of the sand, where it first struck the field, was a foot thick, and remained entirely barren of herbage, and it became necessary to scrape it off. The reader may at once say that a covering thus brought on by a stream, has more or less of fertilizing properties mixed with it, and no doubt this is quite generally the case; but my observation has frequently been attracted to similar occurrences, with like results, where nothing but coarse sand or gravel could be detected. Probably, the true reason for the improved vegetation, is, that it is supplied abundantly with the elements of a new and more vigorous growth by the decaying vegetable matter of the sod thus covered, and the land is relieved for a time from its former turf-bound condition.

**IMPROVEMENT OF PASTURES.**—Judge Hayes' management of his pastures is most excellent, and worthy of particular consideration. A few of the pasture-fields are used occasionally for mowing and tillage, and some of the mowings as pastures; and he finds advantage in the practice. All the pastures are plowed as often as once in 6 or 7 years. As large a tract as his time allows, is turned over each year. The ground is carefully plowed at the most convenient time after haying, and the field rolled. Early in the spring—generally upon a late "sugar snow," as farmers say—a variety of grass seeds are sown, together with rye, and the field is left in common with the rest of the pasture, the rye furnishing considerable feed for the cattle while the young grass is getting root. The moss, grass, small bushes, ferns and droppings of the cattle, are thus turned under to decompose and furnish food for the new seeding. A new surface is brought to day, to be renewed by atmospheric influences; the decomposing sod underneath renders the land light and friable; thus permitting the roots of the new plants to expand and penetrate the soil in every direction. For 4 or 5 years after, a better quality of grass, flourishing in a more robust life, has possession of the soil; and the pastures steadily improve under the management. Judge Hayes would confidently recommend the practice to favorable consideration, where the pastures can be plowed and the farmer has not a surplus of manure to apply to them.

Although some of the pasture-land is somewhat uneven in surface, he has not found it to be injured by washing, from being plowed. He is always particularly careful to run the furrows across, or at right angles with the slope of the hill, which prevents injury from heavy rains.

About twenty years ago, Judge Hayes purchased a pasture of 60 or 70 acres, a mile or two back, for the sum of \$500. It was not very valuable land, and was thought to be high at that price. He commenced improving it by an occasional plowing and re-seeding in the manner described, and I think he informed me that about all of it had been gone over in this way, 3 times. An opportunity occurring to purchase a pasture nearer home, induced him to sell this. He obtained \$1200 for it; and thinks it was cheaper to the purchaser at that price than it was to him, at the time of his purchase; the increased productiveness mainly making the difference.

Much light is thrown upon the efficacy of Judge H.'s various methods for the improvement of grass-lands, by the remarks of Prof. Johnston, in his "Lectures on Agricultural Chemistry,"—a work which the practical farmer may read with much pleasure and profit. After speaking of enriching exhausted lands by plowing in green crops, the Professor says:—

"There is another mode in which recent vegetable matter is employed in nature for the purpose of enriching the soil. The natural grasses grow and die upon a meadow or pasture field, and though that which is above the surface may be mowed for hay, or cropped by cat-

tle, yet the roots remain and gradually add to the quantity of vegetable matter beneath. If the quantity of organic (vegetable) matter which these roots contain, be greater than that which the crop we carry off has derived from the soil, then instead of exhausting, the growth of this crop will actually enrich the soil in so far as the presence of organic matter is concerned. No crops, perhaps, *the whole product of which is carried off the field*, leave a sufficient mass of roots behind them to effect this end, but many plants, when in whole or in part eaten upon the field, leave enough in the soil materially to improve the condition of the land—while in all cases those are considered as the least exhausting to which are naturally attached the largest weight of roots. Hence, the main reason why poor lands are so much benefited by being laid down to grass, and why an intermediate crop of clover is often as beneficial to the after crop of grain, as if the land had lain in naked fallow."

"An interesting series of experiments on the relative weights of the roots, and of the leaves and stems of various grasses, made by Hlubek," is given. "The beds were grown in beds of equal size (180 square ft.) in the agricultural garden at Layback, and mown on the fourth year after sowing, just as they were coming into flower. The roots were then carefully taken up, *washed, and dried.*" I have not room for the details, but it appears that,—*"If we take the mean of all the grasses experimented on, as an average of what we may fairly expect in a grass field—then the amount of living roots left in the soil when a four-year-old grass field is plowed up, will be equal to one sixth more than the weight of that year's crop."*

"A mixture of white clover, of ribwort, of hoary plaitain, and of couch-grass, in an old pasture field, gave 400 lbs. of dry roots to 100 lbs. of hay—and in a clover field, at the end of the second year, there were 56 lbs. of dry roots to every 100 lbs. of clover hay, which had been carried off. In an old pasture or meadow field again, when plowed up, *the living roots left are equal to four times the weight of that year's hay crop.* In the case of clover, at the end of the second year, the quantity of dry vegetable matter left in the form of roots, is equal to upwards of one-half the weight of the whole hay which the clover has yielded. Suppose there be three cuttings, (one in the first and two in the second year) yielding four tons of hay, then *two tons of dry vegetable matter are added to the soil in the form of roots, when the clover stubble is plowed up.*"

"This burying of recent vegetable matter in the soil, in the form of living and dead roots of plants, is one of those important ameliorating operations of nature, which is always to some extent going on, wherever vegetation proceeds. It is one by which the practical man is often benefited unawares, and of which—too often without understanding the source from whence the advantage comes—he systematically avails himself of some of the most skillful steps he takes with a view to the improvement of his land."

**IMPROVEMENT OF WET LANDS.**—One of the best specimens of systematic and profitable husbandry within my knowledge, may be found upon Judge Hayes' bog-meadow. He has some 60 to 70 acres, in one body, which he has been steadily reclaiming, for about twenty years past. A portion of it had been cleared and mowed as sour meadow, for a period of nearly 200 years. It is of oblong shape, and of quite uniform width, surrounded on all sides by gradually rising uplands. It had, therefore, no natural outlet, and all the water flowing in from springs in the surrounding uplands, remained in the soil, making it sour, cold and boggy, without being sufficiently abundant to form a pond upon the surface. The muck, or peat, upon the



outer sides, is from two to three feet deep, gradually lessening towards the centre, where it is from six to twelve inches deep,—the whole resting upon a clay bottom. The increased depth of the muck on the margins, is owing to the greater wetness of the land, arising from the in-flowing springs. This induced a greater growth of swamp plants, as rushes, reeds, mosses, ferns, &c., whose annual partial decomposition, in successive layers, formed an accumulation of vegetable matter greater than that nearer the centre, where the moisture was less.

Allow me to introduce, in this place, an extract from that excellent work, "Low's Elements of Practical Agriculture," which gives a very concise and satisfactory account of the formation of this kind of soil:—

"Peat consists of vegetable matter which has undergone a peculiar change. Under a degree of temperature not sufficiently great to decompose the plants that have sprung up upon the surface, these plants accumulate; and aided by a certain degree of humidity, are converted into peat, which is either found in strata upon the surface of plains, or accumulated in great beds on the tops and acclivities of mountains, or in valleys, hollows and ravines. Successive layers of plants being added to the mass, it continues to increase, under circumstances favorable to its production. Water is a necessary agent in its formation, and we may believe, too, a peculiar temperature, since it is only in the cold and temperate, and not in the warmer regions of the earth, that it is found to be produced. The plants which form it have not entirely decayed, but still retain their fibrous texture; and from the action of certain natural agents, have acquired properties altogether distinct from those which, in their former condition, they were possessed of. They have now formed a spongy, elastic inflammable body, and so different from the common matter of vegetables as to be highly antiseptic.

"The plants whose progress towards decomposition has been thus arrested, are very various. Over the greater part of the surface of the primary and transition districts of colder countries, the peat is chiefly formed of cryptogamic plants, mixed with the heaths and other plants which had grown along with it. Sometimes the peat has been found in swamps and lakes, and at other times the humidity of the climate has been sufficient to form it in one continued bed, covering the whole surface of the country."

The first object in attempting the drainage and improvement of this meadow, was to surround it with a main ditch, 3 feet wide and 3 deep, thus cutting off all the springs flowing in from the uplands. The water was all collected into one channel at one end of the meadow, and conducted off the field through a cut made in the upland, which at this point is less elevated than elsewhere, and after going a short distance, a sufficient natural descent was found to dispose of it without farther digging. Two cross ditches, at right angles to the marginal ones, and two rods apart, were then opened, 15 to 18 inches deep, and 2½ feet wide on top, by 18 inches at the bottom. This gave a sufficient slope to the sides to prevent their caving in and filling up the ditches. The mud taken from them was scattered over the surface between. Two lands of two rods wide, each, were thus made containing about four acres. The hassocks and bushes were then cut and rooted out, and before the frost heaves the ground in the spring, the land was covered with one hundred loads per acre, of a fine, yellow, micaceous subsoil, obtained from the adjoining upland. This fine gravel in a measure combines with and neutralizes the acid properties existing in the surface soil; and the mosses and other wild coarse herbage covered up, are decomposed. The covering was immediately spread, a light dressing of compost—made of manure and loam, in about equal

parts, with the addition of lime,—was applied, the whole thoroughly harrowed, and clover and herds-grass seeds thickly sown and bushed in.

Although, with Judge Hayes' ample means, this meadow might all have been reclaimed before this time, he has yet preferred to conduct his operations in this department, as he always has done in all his farming, by proceeding with a small piece, and a moderate and judicious expenditure annually. He has constantly been working up towards the bushes, by taking up each year one land of two rods wide, from its wild and wet state, and converting it into productive mowing in the manner described. The year previous to taking up a new land, the cross ditches are cut, which renders it drier, and facilitates the operations which are to follow. All the necessary bridges for crossing these ditches with teams are built of stone, it being deemed the cheapest mode of construction, in the long run.

For the first four or five years, these reclaimed lands invariably produce from 2 to 3 tons of good hay per acre. In five or six years, they need the operation of plowing, manuring and reseeded. The plowing is usually done in August or September, by 'back-furrowing,' as it is commonly called, and the ditches are then dug and smoothed off, scattering the mud over the surface between. Late in the fall, 10 to 15 loads per acre of fine compost are evenly spread over the surface, the ground harrowed until it becomes perfectly fine and mellow, and then rolled. It is thus well prepared for a new seeding, which is done the following spring, upon a late snow. The lowlands and pastures are invariably sown with grass seeds at this season, it being found, after a trial of all ways, the surest time to secure a good "catch" of grass.

Over thirty acres are now reclaimed by this course of management. Judge Hayes doubts not but covered stone drains would be better than open ditches, as they would simply conduct off the water underneath without that loss of surface wash, which is always, to some extent, experienced with open ditches. He has concluded, however, that it will be fully his part to place this land in a state of productiveness and profit in the way he is proceeding; leaving it to those who come after him to perfect the drainage.

As I stood in the midst of this meadow, viewing with much delight the improvement which the hand of skill and perseverance had made, I could not but feel that here had been so much solid wealth added to the country. A gloomy and impassable morass, filled with worthless bushes and wild, noxious herbage, had been converted into a most verdant meadow, covered with an exuberance of fresh valuable grasses. And what added particularly to the pleasure of the prospect, was the fact that the investment had been so gradually and advantageously made, that any enterprising and sensible farmer in the vicinity might do the same.

There is quite a general spirit of improvement in progress among the farmers of New-England, in many branches of their business; but improvements by draining and reclaiming wet lands are by no means as general as they might advantageously be. These lands, when made dry, are the most productive in grass of any; and they require much less manure to keep them so, than is necessary to bring our worn-out uplands into any thing like the same productiveness. I would, therefore, confidently urge my brother farmers to attempt the redemption of their wet lands.

In conclusion, I have to remark, that the great fundamental idea in Judge Hayes' farming has been to make his lands, of every description, yield good crops annually;—not to be followed by exhaustion, but by constantly increasing production. Here lies the secret of good husbandry. The eventual success of our farmers must ordinarily depend upon adopting a mode of

culture, which, while securing good present crops, has also in view the future condition of the soil;—a condition of gradual and steady improvement.

Brattleboro', Vt. Jan. 16, 1849. F. HOLBROOK.

## History of Kentucky Cattle.

Letter from Lewis Sanders, Esq.

[The author of the following communication, is well known as a gentleman of much experience and extensive observation in regard to live stock. It was through his enterprise that the cattle were introduced which have been so widely celebrated as "the importation of 1817." Knowing his ability to impart valuable information relative to the success of the different breeds of cattle in Kentucky, we took the liberty of propounding to him several questions, to which he has not only very fully replied himself, but has obtained, also, answers to the same questions from another very intelligent gentleman, Dr. S. D. MARTIN, of Colbyville, Ky. On account of the length of the article we are under the necessity of deferring the publication of the letter of Dr. M. till next month. In the mean time we would tender our most respectful thanks to both of these gentlemen, for their interesting and valuable contributions.—EDS.]

The first emigration to Kentucky,—the "*dark and bloody ground*," the hunting grounds of the Southern and of the Northern Indians,—with the view of permanent occupancy, of holding the country at all hazards, by men determined to overcome the tomahawk and scalping knife, by the use of the rifle, took place in 1775—6. The country then belonged to Virginia; a large proportion of the first settlers were from that state; next from Pennsylvania, then N. Carolina, Maryland, New-Jersey, &c. It is presumed that the emigrants brought with them domestic animals, such as were then in common use. H. Marshall, speaking of Gen'l. Ben. Logan, in his history of Kentucky, vol. 1, says, "in the fall of the year 1775, Col. Logan removed his cattle and the remainder of his slaves to his camp," (near where Danville now stands.) Horses and cattle were subsisted in the summer, in the *range*, consisting of a great variety of nutritive native grasses, including the buffalo clover, and the wild pea vines, luxuriant beyond description; and in the winter, in the *cane brakes*.

It seems to me that the general characteristics of the cattle of the United States, at the commencement of the present century, were very similar to those of Devonshire, Dorsetshire and Somersetshire, in England, as represented in prints of cattle in those counties in the last century. I have observed the cattle of Virginia, Maryland, Pennsylvania, New Jersey, New-York, and the New England states; they seem to have had a common origin.

The first improvement in the breed of cattle in Kentucky was made by Mr. Matthew Patton and his family, to whom the country is much indebted for the introduction of several valuable animals. A historical account of them is given by Dr. S. D. Martin, a highly intelligent and spirited agriculturist of Clarke county, in this state, which is herewith forwarded as a part of this communication.

Judge Beatty, in his very valuable *ESSAYS ON PRACTICAL AGRICULTURE*, (a book I recommend to all beginners to own,) treats on this subject.\* These two papers, combine all the evidence it is thought that can now be obtained relative to the Patton cattle.

I have heard it estimated that the introduction of the

Patton cattle increased the weight of the four year-old bullocks, twenty-five to thirty per cent, besides improving the quantity and quality of the milk. This was a great gain.

The next marked improvement in the breed of cattle, was brought about by the importation of some animals direct from England in 1817. At that period and for many years previously, I lived in Lexington. My pursuits were otherwise directed, than to agriculture; but I had early imbibed a fondness for fine stock, particularly horses and cattle. I admired good fruits, and gave some attention to their culture. For several years I was in receipt of a variety of English publications, on agricultural subjects and agricultural improvements, from which I got a glance of what was going on, in some respects, in the old country. It astonished me greatly, to see the enormous prices paid for animals of particular breeds. First, the Long-horns, brought to a high state of perfection by the justly celebrated Bakewell, Princep, Munday and Fowler. Towards the close of the last century, they were at the height of their popularity. Mr. Princep refused five hundred guineas for a two year old bull of this breed. He was offered one hundred pounds each (\$485) for twenty dairy cows. He refused to let his best bulls go to his neighbors' cows, for thirty guineas the cow. At this period, 1789, the circulating medium was *gold*. The bank did not suspend specie payments until 1797. Mr. Fowler refused five hundred guineas for ten bull calves of the same breed, and let his bulls out for the season (1st of April to the 1st of August,) for from £60 to £80.

Much time was required, combining capital, skill and untiring perseverance, to bring this breed to such a high state of perfection. Notwithstanding all this, it was suffered to run out, almost to disappear in the course of a few years. About the time that the Long-Horns were held in such high estimation, commenced the improvement of the Short Horns. Skillful breeders, with Charles Colling at their head, brought this breed to a very high state of perfection. Their value was at the height in 1810. In this year a public sale took place. The list of animals sold, and the very high prices paid for each, has been often published. Countess, out of Lady, four years old, brought four hundred guineas; Comet, six years old, brought one thousand guineas. He was bought by four farmers.

It seemed to me, that if four farmers were willing to pay five thousand dollars for a bull, there was a value in that breed that we were unapprised of, and that I would endeavor to procure it. I made up an order for six bulls and six cows. My views were then more inclined for a good milking than for a beef breed. The weight of authorities, given by the writers on the subject of cattle, at the close of the last, and the commencement of the present century, were in favor of the *Holderness* breed as the best for milk, and the *Teeswater* and *Durham* as having the handsomest and most perfect forms. I settled on these breeds. In frequent conversations with Capt. Wm. Smith, about the contemplated importation, he strongly urged me to include the *Long Horns*; he had witnessed the marked improvement made by the use of old Mr. Patton's first Long Horn bull, and he was extremely anxious to have a bull of that breed. I had great respect for him as a man, and confiding in his judgment, two pairs of the Long Horns were added to the list. The order was forwarded in the fall of the year 1816, to Buchanan, Smith & Co., Liverpool, with instructions to cause selections to be made of the best young animals for breeders, all to be two years old in the following spring.

First, a bull and heifer of the *Holderness* breed, to be procured from that district in Yorkshire. Next, two bulls and two heifers of the *Teeswater* breed, to be pro-

\*The remarks referred to, though interesting, are omitted, as the principal facts are embraced in the articles of Mr. Sanders and Dr. Martin.—EDS.



cured on the River Tees, in the county of Durham. Then a bull and heifer of the Durham breed, and two bulls and two heifers of the Long-Horn breed. A minute description was given, particularising each breed,—no limit as to price. If the money sent, was not sufficient to put that number on board ship; they were to be reduced, so as to have the best animals that could be had for breeders.

Buchanan, Smith & Co., employed Mr. Etches of Liverpool, to go into the different districts to make the selections and purchases, and he seems to have executed the order with much ability. The following is the invoice:

*Cattle shipped on board the Mohawk for Baltimore, consigned to Messrs. Rollins & McBlair, merchants there.*

- No. 1. A bull from Mr. Clement, Winston, on the river Tees, got by Mr. Constable's bull, brother to Comet.
2. A bull of the Holderness breed, of Mr. Scott, out of a cow that gave 34 quarts of milk per day—large breed.
3. A bull from Mr. Reed, Westholm, by his own old bull.
4. A bull of the Holderness breed from Mr. Humphreys, got by Mr. Wase's bull, of Ingleton.
5. A bull of the Long Horn breed, from Mr. Jackson Kendall, out of a cow that won the premium.
6. A bull of the Long Horn breed, from Mr. Ewartson, of Crosby Hall—is of a very fat breed.
7. A heifer from Mr. Wilson, Staindrop, Durham breed.
- 8, 9, 10. Three heifers from Mr. Shipman, on the river Tees—his own breed.
- 11, 12. Two heifers of the Long Horned breed, from Mr. Ewartson, Crosby Hall—of Westmoreland breed.

The Mohawk arrived in Baltimore, in May, 1817. The cattle were safely landed, in good condition. Great pains had been taken, in procuring comfortable accommodations for them in the ship, and, an experienced herdsman employed to feed and take care of them on the voyage. On arrival, they were taken in charge by my friend, Mr. John Hollins, who caused them to be put in the best pasture, and particularly cared for.

After the cattle had been shipped, and before their arrival at Baltimore, I sold to Capt. Wm. Smith, one-third of the concern, and to Dr. Wm. H. Tegarden an other third; reserving to myself one-third only. A suitable agent was sent to Baltimore for them, and they were brought to Kentucky at the joint risk and expense of the three parties. On their arrival at Lexington, they were divided.

There fell to my lot, bull

- No. 1. which I named Tecumseh.
- No. 2. named San Martin.
- No. 8. " Mrs Motte.
- No. 10. " Georgiann.

Capt. Smith's lot:

- Bull No. 5. which he named Bright.
7. " " the Durham cow.
9. " " Teeswater cow.

Dr. Tegarden's lot:

- Bull No. 4. which he named Comet.
- " 6. " " Rising Sun.
12. Long Horn Cow.

No. 10 died in Maryland, No. 3 (bull) became lame on the travel out to Kentucky, and was left on the way. He was afterwards received, and sold by the company, to Capt. Fowler, who sold him to Gen. Fletcher, of Bath county, Kentucky, where he died.

When the division took place, Capt. Smith evinced great anxiety to own the largest Long-Horn bull; Dr. Tegarden preferred No. 4, and, as neither of them were my favorites, I cheerfully yielded; and in consequence, they gave me choice of the cows. I selected one of the Teeswater Heifers and named her Mrs. Motte. It was a very pleasing occurrence to have each party highly gratified, with receiving the very animals he preferred.

The narrative of a pertinent coincident, will not, I think, be deemed ill-placed.

Mr. H. CLAY, being in England in 1816, having always had fondness for fine horses and for other fine stock,

concluded to send home some fine cattle. At this time, the Herefords were great favorites at Smithfield. Either from Mr. Clay's own taste, or from the recommendation of others, he selected that stock, purchased a cow, a young bull and heifer of that breed, and sent them to Liverpool, to be shipped to the United States. It so happened that they were put on board the Mohawk, the same ship with my cattle, and they arrived together at Baltimore, were there placed in the same pasture, and the agent that was sent for my cattle, brought out Mr. Clay's to Kentucky.

Although Mr. C. and myself, at that period, resided in the same city, and had always been personal and political friends, from the time of his coming to Kentucky, in 1798, till March, 1825, and our social and personal relations have been unchanged for fifty years—yet neither Mr. C. or myself had the slightest knowledge or intimation, of the intention or views of the other, in regard to *importing foreign cattle*.

Mr. Clay at one time, had a good stock of horses. He bred the dam of Woodpecker, one of our best race horses, and he proved to be a good stallion. His flock of sheep were celebrated for the fineness of their fleece.

But having introduced the Herefords, I may as well finish them.

At this time, (1817) Mr. Isaac Cunningham owned the largest and best grass-farm in Kentucky—the identical farm settled by old Mr. Matthew Patton, the father of the Patton family, who introduced the Patton cattle. Mr. C. was wealthy, had a good stock of Patton cows, and had been in the habit of selling his young ones for breeders. Mr. Clay's good judgment, led him to place his *Herefords* in the hands of Mr. Cunningham; notwithstanding all these advantages, the Herefords made no impression; in a very few years they were unknown as a breed in Kentucky, and at this day, a part blooded one is rarely to be met with.

As to the Long Horns, although there were two bulls and two cows imported, the breed has nearly run out. Capt. Smith kept them up for a while, but as he died soon after they were introduced, his stock was neglected. The Rising Sun left a good stock in Clarke and Bourbon counties, and for a while they were very popular with the feeders in those counties; but they have gradually yielded to the Short Horns. A mixture of Long-Horn blood, in a remote degree, is deemed by many feeders of great value, (and that is my opinion.) The hide is thick, the hair is long, and very closely set; they are of very hardy constitution, well adapting them to our mode of feeding. Cattle are not housed or sheltered, but fed out in the fields, taking the weather as it comes. The Short Horns have thin hides, fine short hair, and do not stand exposure to the weather so well.

The importation of 1817, (alluding to which it seems that the Long Horns and the Herefords, are to be omitted,) gradually gained favor with the feeders and breeders. The young ones were much sought for throughout Kentucky, and parts of Ohio, and were all sold for breeders. *Tecumseh* and *San Martin* were the principal instruments used in effecting this great improvement. Mrs. Motte, the Durham cow, and the Teeswater cow, were excellent breeders. The Durham cow was equal to the best milk cow I ever saw. Napoleon was her best bull calf. Mrs. Motte was the neatest, the finest animal of the importation.

A year or two previous to 1831, I observed that my young cattle were not up to the mark of improvement that I wished to see progressing, but were rather falling back. The only remedy that I then thought, and still believe necessary to arrest this downward tendency and to give a fair prospect of improvement, was the *introduction of remote blood*.

Col. John Hare Powell of Philadelphia, imported a number of animals of the improved Short Horn breed, several years subsequent to 1817. He ordered his selections from the best herds in England, with great particularity as to pedigree, form and milking qualities, and without stint as to price. My attention was directed to this stock, to procure a cross on the Short Horns of 1817.

In the spring of the year 1831, I procured of Mr. Barnitz, of York, Pennsylvania, a young bull and three young cows of Col. Powell's stock. In several points, their forms were better than those of 1817. The cross was very beneficial to me.

Some few years afterwards, David Sutton of Lexington, introduced several animals of Col. Powell's stock.

Then other gentlemen imported cattle from Philadelphia, and from other parts of the United States and from England; so that we had a number of bulls and cows of the best known breeds in England and in the United States. From this basis, intelligent gentlemen, with abundant capital and great skill, have continued to improve, by judicious crossing, until we have arrived at a high state of perfection, as to *form* and *early disposition* to take on *fat*, points most desired of all others by the grazier and the feeder.

Notwithstanding that Col. Powell's stock were drawn from the best milking families in England, their descendants did not prove with us to be as good milkers as the stock of 1817, nor were they so healthy.

The dairy is but a secondary consideration with a Kentucky farmer—beef is more profitable, and as the great object of all pursuits is *money*, the one putting most in the purse will be pursued. For a dairy of cows where there is a demand, selling milk is most profitable—next cheese, if the climate suits; last, making butter. A Kentucky farmer in general, has no demand for milk. Cheese can be made here as well as any where else, but it costs too much labor to save it. Some writers say that it ought not to be relied on as a business, south of 40°. Butter could be made, of the best quality, and in quantities, but it seems that the farmers prefer taking only as much milk from the cows as supplies their families with milk and butter, giving the remainder to the calves. From these considerations it would seem that the *breed* of cattle bringing most money from the butcher at two and three years old, will have the preference with the grazier and the feeder, they using nine-tenths of the cattle bred in the state.

It will be seen from what has been stated, that great attention has been given to the breeding of cattle in this state for more than fifty years, and the course pursued has been to procure the best known breeds to cross with; so that we now have an excellent breed for the grazier and for the feeder—forms approaching near and nearer to perfection, and an aptitude to take on fat at an early age. But in obtaining these grand objects, *perfect form* and *early maturity*, so much desired by the grazier and the feeder, we have *sacrificed*, mainly, the *milking qualities*.

Whatever be the breed, there are certain conformations which are indispensable to the thriving and valuable ox or cow. If there is one part of the frame, the form of which, more than of any other, renders the animal valuable, it is the *chest*. There must be room enough for the heart to beat, and the lungs to play, or sufficient blood for the purposes of nutriment and of strength will not be circulated—nor will it thoroughly undergo that vital change which is essential to the proper discharge of every function. Look, therefore, first of all, to the wide and deep girth about the heart and lungs; we must have both. The proportion in which the one or the other may preponderate, may depend on the service we require from the animal; we can excuse a slight degree of flatness of the sides, for he will be

lighter in the fore hand, and more active; but the grazier must have *breadth* as well as *depth*. And not only about the heart and lungs, but over the whole of the ribs must we have both length and roundness—the *hooped* as well as the deep barrel is essential; there must be room for the capacious paunch, room for the materials from which the blood is to be provided. The beast should also be ribbed home; there should be little space between the ribs and the hips. This seems to be indispensable in the ox, as it regards a good healthy constitution, and a propensity to fatten; but a largeness and drooping of the belly, is excusable in a cow, or rather, notwithstanding it diminishes the beauty of the animal, it leaves room for the udder; and if it is also accompanied by swelling milk veins, it generally indicates her value in the dairy."

The introduction of the Patton stock into Kentucky, effected as much benefit to us in the improvement of our cattle, in a little more than twenty, as was effected in England in more than *sixty years*.

A printed report of a select committee of the House of Commons, in 1795, stated that cattle and sheep had increased on an average, in size and weight, about a fourth since 1732.

The average weight of cattle slaughtered for the London market in 1830, was 656 lbs. [McCullough's Dictionary of Com.]

At Liverpool, about the same period,

600 Irish beasts, averaged, .....	720 lbs.
140 English do. ....	730 "
60 Scotch do. ....	610 "

It would seem that our improved breeds exceed these weights. Twenty fat cows were sold in the early part of this month, by one drover, at Cincinnati, the average weight of which was over one thousand pounds, the four quarters. These cows were Kentucky bred. All but three had produced calves.

I expected to receive authentic data, to state the average *age* and *weight* of the *four quarters* of cattle slaughtered at Louisville, and at Cincinnati, for three periods. Though promised, the paper has not yet come to hand.

In 1833, I took to New Orleans three bullocks, produced by a cross of the cows of the Patton and Miller stock, by bulls of the importation of 1817.

No. 1. Red, 6 yrs. old, live weight, .....	3448 lbs.
2. " same age, .....	3274
3. Brindle, 4 yrs. old, .....	2868

I sold these three animals together, at auction, for the sum of nine hundred and twenty-five dollars.

I was at the New-York State Agricultural exhibition at Saratoga, in September, 1847. I very attentively examined the cattle stock there shown. The oxen were better than are generally to be met with in Kentucky; all others not so good.\*

The Ayrshire cattle may be classed with our half-blooded Durhams, from common cows.

We can derive no benefit from a cross of Devon blood.

The diminutive size, and ill-forms of the Alderneys, would exclude them from our pastures.

Our climate is favorable for breeding and rearing cattle. They are free from any marked disease. I have never known an epidemic among them.

It is the custom with some farmers, as soon as the corn is in the roasting ear, to cut it up, giving stalk and all to hogs. The hogs masticate the stalk—suck and swallow all the juice, throwing out the remaining fibrous matter, which soon becomes dry. Cattle are very fond of this refuse stuff; but when taken in quantities, it causes a derangement of the maniplus, for

\* The show of cattle at Saratoga was inferior to any ever held by the N. Y. State Ag. Soc., and should not be taken as a fair representation of the character of the stock of the State. Eds.



which no remedy has as yet been discovered. At first the animal becomes restless, and is feverish. Soon after it begins to rub its head down and up a post, or any thing it can rub against—manifesting the greatest pain and misery. It continues rubbing until it dies. [We suppose this to be what is called the “mad itch.”—Eds.] I have seen several so affected, and after the rubbing commenced, I never knew of one that was cured. Upon opening the animal, it is found that the maniplus is entirely deranged, dry and hard, mortification having in some instances already commenced. The only remedy, is to keep your cattle from the place where green corn stalks have been fed to hogs.

Cattle of Ohio and Indiana are not so healthy as are the cattle of Kentucky. I was told by a Cincinnati butcher, who supplies with beef a portion of the Jews of that city, that he was compelled to procure his cattle for these people from Kentucky. The Priest sticks the animal, which is dressed in his presence by the butcher. Upon opening the animal, if any imperfection of the intestines is visible, such as blisters on the liver, &c., the Priest remarks, “this one may do for the Christians, but will not do for the Jews—you must bring up another.”—The cattle of Kentucky have no blemish; the intestines are in a perfectly healthy condition; so we, only, can supply the Cincinnati Jews with beef.

I was informed by Dr. Watts of Chillicothe, a gentleman of intelligence and great enterprise, who feeds and grazes on a large scale, that he would pay five per cent. more for Kentucky raised cattle for either purpose, than he would for Ohio or Indiana cattle. He considered the risk of life that per cent. in favor of the cattle of Kentucky.

There are three epochs in the history of Kentucky cattle: First, the introduction of the Patton cattle, say in the year 1790, and some years afterwards, the Miller stock of the like blood. These were generally diffused throughout the State, improving our stock twenty-five to thirty per cent, in a period of 25 years.

Second. The importation of 1817, which gave us finer forms and an aptitude to take on fat at an earlier age, adding twenty-five to thirty per cent. upon the Patton improvement, in a period of less than 20 years.

Third. The numerous importations made into Kentucky and into Ohio, from 1831 to 1836, from which has arisen our present superior breed. To keep up this breed as it now is, requires sound judgment and unceasing vigilance, or a decline must follow.

I recommend to the breeders in Kentucky, to import at least half a dozen young bulls from the Netherlands, Holland, or Northern Germany, at once,—and renew such an importation every five or six years, for twenty years. Then to draw their young bulls from the best stocks to be found in England.

I do not think it is desirable to have a very large breed; but *form* and *early maturity*, are not for a moment to be lost sight of. A skillful breeder endeavors to shape the animal, so as to carry most flesh on the valuable points, to have the *loin* and *hind quarters* much the heaviest, as these parts bring to the butcher the most money.

Grass Hills, Ky., Dec. 1848. LEWIS SANDERS.

**PREVENTION OF SMUT IN WHEAT.**—A simple and perhaps the most effectual mode of preventing smut in wheat, is to mix with the seed grain a solution of blue vitriol—sulphate of copper—an ounce of vitriol for a bushel of wheat, or in that ratio. Turn the wheat on a floor, and pour on the solution of vitriol boiling hot—using a gallon of water to a bushel of wheat. Mix it by turning with a shovel several times. Let it lie in a heap over night, and if too damp to sow readily next morning, mix in enough air-slaked lime or plaster to dry it.

## Suggestions for Farmers.

### System, Order, and Economy.

THESE may be esteemed essential virtues, and important to the welfare of mankind: they are, however, peculiarly indispensable to the agriculturist, to the farmer whether rich or poor, to secure and retain the comforts and conveniences of life. Without any endeavor to enforce this plain truth by argument, it may be useful to point out to farmers engaged like myself, in the endeavor to obtain from the soil, the *largest* product, at the least cost, some few of the methods, not yet in general use, though well established by the practical experience of many industrious and thrifty men.

As a working farmer, earning my bread by the cultivation of my farm, I do not pretend to claim any credit for unsupported opinions or private judgment; but desire to show and prove how much *profit* may be realised by a careful attention to system or method in farming, with order and neatness in its prosecution, thereby practicing true economy.

Preparatory, however, to the above object, it seems proper to consider some of the means by which the farmer can best arrive at system and order, and for that purpose, and to secure his full acquiescence in statements which may be set forth, certain *principles* must be admitted, or agreed on, long since well established, and we shall then arrive at conclusions with one mind—these principles are:

*First*—The cultivation of the earth must be accomplished, by the force of men, animals, wind, water or steam.

*Second*—Man can exert a force equal only to about one-sixth of the power of a horse; and can be more effective in *carrying* than in *drawing* a load; while the horse exerts more power and with greater effect in drawing, than in carrying a load or burthen.

The effective force of a horse is estimated as equal to that of six men, in labor performed from day to day.

*Third*—The expense of keeping a horse is about equivalent to the keep of one man per day.

*Fourth*—The power of man, when used without the application of his mind or intellect, degrades him in his own estimation, reducing him to a condition of servitude and dependance.

These truths being admitted, we cannot hesitate to adopt for our present purpose, a portion of the first, and say, that our farming operations in this country must be carried on by men and animals. But, as the force of one horse is equal to the force of six men, we *must* in preference use the power of the horse as most economical. Man, however, having intelligence, possesses in that faculty, a power of infinitely greater value than his physical force; he soon learns that his hand is a tool of wonderful contrivance, surpassing all others in utility, and the same intelligence quickly points out to him the existence of certain fixed powers or mechanical forces, which his hand may readily combine; and thus form for himself tools and machinery to effect any desired object, far exceeding in force or power, any effort of men or horses. It is by this increasing intelligence of the farmer, his seeking after knowledge, and by its application, that, within a comparatively short period, he has ascertained the most perfect means (by aid of machinery) to divide and break up his soil, no matter how tenacious or resisting; to reap his grain and grasses—to rake and collect them on the field, to house them in his capacious barns; to thresh and clean them for a ready and never failing market.

From this source he is now enabled to perform his work with greater truth and accuracy; he economizes time, he saves labor, and thereby enriches himself and his family.

These results of the farmer's intelligence, are made manifest by the several agricultural reports sent forth from the Patent office, as well as by the pages of *The Cultivator* and other valuable agricultural periodicals. As, however, the use of machinery in farming has not yet been sufficiently extended to make its benefits known to our farming interest—it is proposed, as opportunity offers, to bring these objects more minutely to their notice, and endeavor clearly to prove their profits and advantages, as closely connected with System, Order and Economy.

I have proposed above, to consider some of the means or machinery, by which the farmer can best arrive at system and order, with economy. Certain principles have been laid down, which it is believed are too well established to admit of doubt.

In this country, where agriculture takes the lead in importance, of all other professions, and where the government is more dependant on her farmers for its welfare, than on any other class of men; and where the immense tracts of public land are proffered to the industrious at a nominal value; manual agricultural labor must and will for years to come, be expensive. In this fact, we find a prominent exciting cause for the introduction of machinery, whereby one animal may be made to accomplish far more than the power of six men. And happy is it for us, that our native genius nearly keeps pace with the urgent demands for mechanical combinations.

We now have the Plow, Harrow, Cultivator, Seed-sower, Horse-rake, Reaper, Cart and Wagon—the Threshing machine, Clover mill, Fanning mill, and portable Grist mill, so constructed, as to be applicable to any and every farm, and to render the farmer independent of a large portion of the labor, which hitherto has been a grievous tax upon his products, and consumption of his time. To the foregoing, may advantageously be added in many places, the Hay, Straw and Stalk Cutter,—Corn and Cob Crusher, and the Circular saw, all of them used by the power of the horse.

The larger portion of these implements are necessary to the economic farmer, in greater or lesser quantity, according to the size of his farm.

It would be bold indeed to claim perfection for any of these farming machines, but the endeavor will be to test their economy, to show how they enable us to improve System, which will naturally lead us to do all things neatly and in Order.

The *Plow* is the first machine named, and has been so long in use, and undergone so many changes for the better, and prejudice does yet hold so fast of the minds of many in regard to some one favorite pattern, and as construction does not interfere with the object in view, no allusion is necessary to the several admirable forms of plow we have in use; nevertheless, I have so often witnessed the loss of time, imperfect work, and a consequent loss of crop to the farmer, by careless practices with this machine, that a few remarks will be applicable. Many farmers seem to view the plow as a common, unimportant implement, not requiring their special care and attention,—not knowing the amount of science that has from time to time been applied to its construction, in order to present the least resistance to their teams, and divide their soils in the most perfect manner.

That this is true, appears by the condition in which the plow is too often found after use—often left in the field, or on the road, exposed to the burning heats of summer, and to the frost, ice and snow of winter. How long will a good plow last, thus exposed? Not over two or three seasons, if so long; on the other hand, if the farmer had done his duty, and housed his plow in clean condition, and afforded to it one coat of paint during a leisure hour in the winter, his plow would last

not less than six, eight or ten years, performing well its annual duty. There is no one implement on the farm more important than the plow, and none needs more skill in its proper adjustment and use; yet the absence of system, of order and economy, causes an expenditure for plows every two or three years, which might be prevented by attention to order, for three times that period. But this is not the only source of waste arising from this vicious carelessness. I have seen plows used, where the coulters were one-quarter of an inch broad, where the cutting edge should have been; preventing a clean cut, and increasing the labor of the horses—and the same difficulty is often experienced by the rusting of the mould board, which, by its roughness, holds the soil and impedes the plow, thus wasting time, and not unfrequently turning the plow from its course.

So also, as regards the harrow, much time is lost in bringing a field to proper tilth, by the exposure of this implement to the weather, instead of carefully preserving it, by cleaning, painting, and keeping the teeth sharp. It may not be easy to estimate with precision, in dollars and cents, the loss sustained from the foregoing causes, but from experience and observation, I think the difference in results, from work done with perfect and imperfect implements, may safely be estimated at one third. Now the cultivation of an acre of wheat costs about and not less than ten dollars, so that the careless farmer loses from this cause alone, \$3.33 per acre on his wheat, a loss somewhat alarming, and sufficient, if saved, in one season, to afford a tool-room, and paint for years to come.

If we compare the loss of the incautious man, with the sound economy of the prudent farmer, upon a field of wheat of twenty acres, we find the latter has the advantage by \$66.66 on the crop, besides other benefits which every thinking farmer can anticipate.

Here is a positive loss, encountered by too many farmers, by reason of want of system and order, which it is hoped will be avoided by all who may read these remarks, and find any applicability to themselves.

Before we consider the economy of the next implement on the list named by me, it may be well to say, that judgement in the selection of our proper tools and machinery is essential to economy, and to the due preparation of the soil for our seeds and plants; and it is here noticed, because we are frequently mortified and disappointed by the pertinacity and cupidity of men who peddle imperfect farming machines, tempting the unwary by presenting them at their very barn doors, pressing their use with importunate zeal. Oft times, when too late, the implement is found devoid of merit, or made of materials too imperfect to endure the severe service of the farm.

The plow is so important to us, that I must allude to it again in my next, in connexion with the harrow and cultivator. AGRICOLA. *Seneca Co., Feb. 1849.*

#### Farmers' Clubs.

EDS. CULTIVATOR—We are by nature calculated for sociability and society; hence the many associations which are formed. In an agricultural community, Farmers' Clubs are believed to be the most useful and appropriate associations that can be formed. The occupation of the farmer has too long been considered by many, as a dull stupid business, requiring but little learning or mental exertion; but the facts are entirely the reverse. His success depends upon the subtle and refined agencies of nature. To understand the principles which lie at the foundation, so that he can rely upon them, aided by their own exertion, to produce their natural effect, is a matter requiring great mental search and practical experience. Farmers have, by observa



tion and practice, acquired more of this knowledge, and have done more to bring about the high state of civilization which we now enjoy, than they have credit for. Farming commenced at an early age. Those who first abandoned the shepherd state, cleared, fenced and cultivated their fields; built houses, established permanent residences, and owned and possessed their property individually, were the first who were fully entitled to the name of farmers. And as civilization cannot exist in a wilderness country, this may justly be considered, the first step towards civilization, with all its attendant benefits. And just so fast as agriculture has progressed; just so fast have arts, sciences and refinement progressed, and no faster. All have been dependent on the farmer for their food, and most of the raw materials with which they are clothed.

During this long process, the farmer must have acquired a great amount of information, founded on natural principles as well as practical experience. Still they have been contented with less scholastic education than those engaged in most other pursuits; and have not, like them, profited by keeping a journal or record of their operations. The merchant and manufacturer know from their books, the exact profits or loss, of all their operations; they know exactly, the advantage of every improvement, over the former practice; while the farmer, for the want of proper records, has to guess at all this. While one thinks he has made an improvement, another doubts it, and no one can determine with certainty. Important facts, it is true, have been obtained by scientific men; individuals too, have determined important facts by actual experiment; all which have been, and are continually published, and are doing much good. But from some cause, the great mass of common farmers are not profiting by these publications, as we could wish. It is believed, if they would form societies, keep a journal, and try the experiments for themselves, noting profit and loss, they would readily adopt the most useful improvements.

The formation of Farmers' Clubs, seems to be the most natural way, to cause the improvement made and published to be generally adopted; and to make improvements themselves. They could, by a small contribution from each member, purchase the latest works; also the journals as they are published, the reading of which would naturally beget a spirit of inquiry. Each would be anxious to possess as much information as his fellow. Thus a degree of useful competition would spring up, both as to the acquisition of knowledge and its practical application.

It is well known that farmers generally, are unwilling to put their ideas on paper. Many of us who learned to write a tolerable hand while at school, have paid so little attention to it since, as not to have acquired an easy business hand; or the ability to put our thoughts on paper intelligibly. This cannot be well done without some experience and practice. They should at least, be able to write intelligibly on matters relating to their occupation. To do this, the mind, as well as the hand, needs some training and practice. Whenever we make a tool or implement with our hand, we have the thing as it is, to look at; if it does not suit, we can try a second or third time, until we get it to answer the purpose. The same rule will apply to the putting our thoughts on paper; we cannot tell how they will read until we make the trial; and we should keep trying until we succeed tolerably well. This will do much towards training the mind to correct and systematic habits of thinking.

Let each member of the club, procure a good sized blank book; commence, say in the spring; write down all matters which relate to the operations of the farm, viz: Number of acres, the soil, manner of tillage, quantity and kind of manure; the time of seeding of all

kinds of grain and vegetables, quantity of seed per acre; the situation of the land, as to wet or dry; making suitable entries during the season, as to the weather, the growth of crops, whether doing well or not, and the probable cause; the time of harvesting, yield per acre; if good or poor, the probable cause; the time of selling, the price, if high or low. A memorandum somewhat similar, as to the stock; the diseases with which they are attacked, if any, the remedy used; and the effect. Let an exact account be kept of the outgoes and incomes, and a balance be struck at the end of each year; taking special pains through the year to ascertain causes and their effects; and be not afraid of writing too much. By this course they would soon acquire the habit of putting their thoughts on paper in a systematic way. At the end of each year, these papers could be presented to the club, and examined by a committee; and all matters worth remembering, put into a condensed report, and recorded. By this course, a comparison could be made between the different systems practiced, and the best could be adopted. By this it is believed every important improvement would soon become general; errors would be detected and abandoned. Committees could be appointed to make tests and examinations on all important matters, and report. The presiding officer should make an annual address; the secretary could correspond with other societies; reports could be made to the county agricultural societies, and all matters of sufficient importance, published. All this being done by the farmers in their own way, would create a spirit of inquiry, and give them confidence in themselves, and tend much to the improvement of their mind as well as their farms.

Wherever such a society is formed and well sustained, we may expect to see in a very few years visible signs of improvement, in the cultivation of fields and gardens, the improvement of stock, in the planting and cultivating fruit and shade trees; in buildings, and in the general taste and neatness in all farming operations as well as an increase of profits. These may be looked upon as the natural consequence. The members would stimulate each other, an honorable and profitable competition would spring up; natural causes would be looked into, and their effects ascertained. Thus the farmer and the farm would go on improving together. FARMER. *Columbia, N. Y., Jan., 1849.*

## Agricultural Implements.

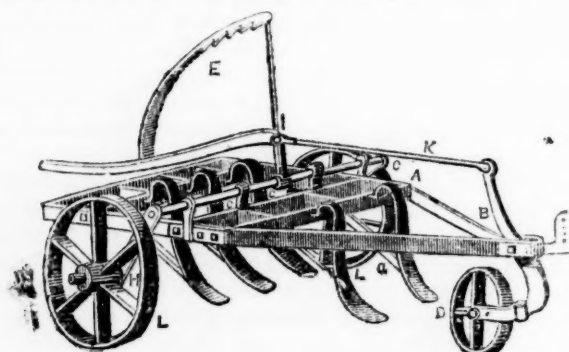
### Extirpators or Scarifiers.

PERHAPS there is not a more serious defect in our husbandry, generally, than that which permits the growth and increase of noxious plants. In many instances a singular negligence is manifested in this respect; the soil becoming filled with weeds, thistles, and grasses, which greatly detract from the yield of cultivated crops.

On common arable lands, the most injurious of these foul plants, is couch grass—*Triticum repens*. From its innumerable lateral roots, which extend in every direction, it completely overruns the soil, matting itself so firmly over the surface, that little chance is left for the growth of anything else. The implements commonly used, effect but little towards the eradication of this pernicious grass. If the ground is plowed, the sward is merely reversed; the roots, sprouting at every point, instantly send up new blades, and in a short time, the surface is as green as ever. The common harrow takes but little hold of it, and unless used in dry weather and in connexion with frequent plowings, only makes it grow faster. Such, also, is the effect of chopping it with the hoe, unless the operation is repeated so often as to prevent the top from acquiring any

growth. An implement is wanted that will penetrate the ground to as great a depth at least, as it is moved by the plow, and which is at the same time calculated to thoroughly stir the soil and bring the fibrous roots to the surface.

Various kinds of extirpators or scarifiers are used by the English and Scotch farmers for cleaning the soil. Of this class of instruments, one called, from the name of the inventor, Finlayson's Scarifier or grubber, (fig. 30) has been extensively employed, and is, probably, as efficient as any in use. It is described by Prof. Low, in his *Practical Agriculture*, as follows:



30—SCARIFIER OR GRUBBER

"It is made wholly of malleable iron, and consists of a frame supported by wheels, and having inserted into it a certain number of curved teeth or prongs. It is so formed that the wheels can be raised or depressed, so that the frame can be brought nearer to the surface of the ground, or raised more above it, by which means, the prongs penetrate the soil to a greater or less depth. This instrument was originally formed with nine prongs in two rows, and required a power of four horses to work it. It has now been lessened in weight, and the number of prongs reduced to five, so that it can be readily worked by a pair of horses. It has further undergone certain modifications, so that its frame with its prongs can be more readily raised or depressed, and the prongs more easily set at a greater or less depth, or raised wholly out of the ground, by the workmen. The figure shows the form of the machine, as it is now constructed.

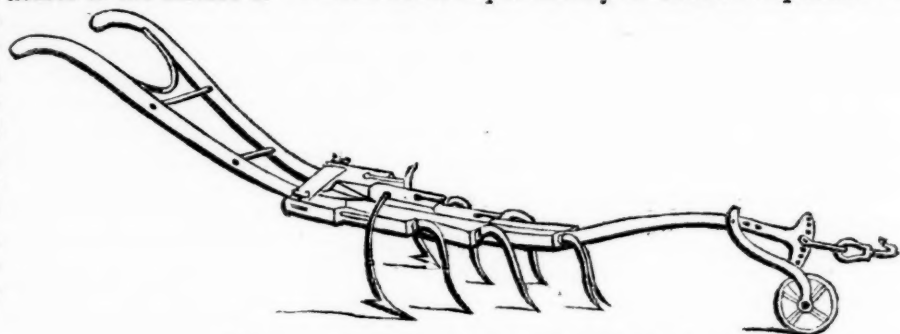
"It consists of two parallel sides A. A., with two sets or pairs of cross-bars, as shown in the figure. Into the hindmost of these sets are inserted three curved teeth or prongs, and into the foremost set two prongs. From the foremost set of bars, the sides begin to converge, so as to meet at B., where there is a bent lever moveable on a bolt, and connected with the wheel D., which runs upon the surface. This lever is attached by a bolt to the rod K., and this rod again by a bolt at I. with the handle C. The handle is bent at the same bolt I., and connected at O. with the horizontal rod c. c., by which means, when the handle is elevated or depressed, the rod c. c. is turned. This rod has an arm at each extremity, H., at right angles to it, which carry at their ends the hind-wheels L. L. Standing upon the frame, in the manner shown in the figure, is a curved bar, E., with a set of notches on one side, so that the handle, being raised or depressed, can be fixed at any given position. When the handle is depressed, the radial part O. is drawn back, and consequently the rod K.; and thus the wheel D. is pressed downward—the point of the frame B. rising in the same degree. Again,

by the same depression of the handle, the rod c. c. is turned, and the arms H. P. are placed more vertical, and the wheels L. L. are lowered; or, in other words, the frame is raised. Thus the depression of the handle raises the whole frame with its prongs. Again, when the handle is elevated, the operation is reversed; the wheels are raised, and consequently the frame approaches nearer to the ground, and the prongs penetrate deeper. Thus, the prongs can be elevated or depressed at pleasure; and thus by fixing the handle in the notches at a greater or less height, the prongs work at a greater or less depth in the soil. By pressing the handle sufficiently down, the prongs can be raised entirely out of the ground, which is required when turning at the end of the ridges, or taking the machine from one place to another.

"The curvature given to the prongs is for the purpose of preventing any roots or other substances raised from the soil, from collecting and impeding the machine. They are supported by stays a. a., and they cover a space of about 4 feet 4 inches.

"The introduction of this class of instruments into tillage, must be regarded as beneficial and important. When land is full of root-weeds, the repeated operation of the plow, the harrow and the roller, is resorted to for tilling and cleaning it. In these cases the grubber is a useful assistant, and may frequently supersede the necessity of one or more plowings.

"The grubber can be made to go to any depth which may be required, and thus the soil can either be stirred to the depth at which it had been originally plowed, or to such lesser depth as may be deemed expedient. It



31—SCARIFIER OR CULTIVATOR FOR HOED CROPS.

is, in this respect, greatly superior to the harrow, which we cannot regulate in this manner. The employment of the grubber, however, does not supersede that of the harrow in the pulverization of the ground and disengaging of the roots and weeds. The harrow is still to be used in conjunction with the grubber, and especially for collecting into heaps the roots of the plants brought to the surface."

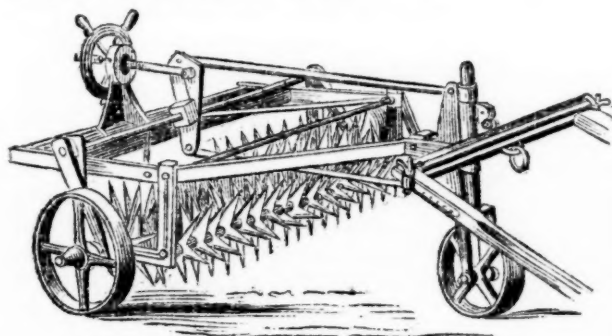
We will remark that a better implement than the harrow for collecting the roots and weeds, is the spring tooth horse-rake. It should be made of wire a size larger than is commonly used, and will answer admirably for the purpose mentioned.

SCARIFIER OR CULTIVATOR FOR HOED CROPS.—The implement above described, it will be seen, is intended for open fallows. One, similar in principle, but on a smaller scale, is wanted for hoed crops. The common cultivator, especially when made of cast iron, frequently fails to perform the work required, in a proper manner. Clayey soils sometimes run together and become so close and hard as to be almost impenetrable to the roots of plants. This hard crust also prevents the absorption of moisture from the atmosphere, as well as its exhalation from the subsoil, and renders the crop liable to injury from drouth. The cultivator and harrow, as usually made, are only superficial in their action; and the common plow throws the ground too much into ridges and hollows, and by its pressure or



the subsoil, rather increases its compactness. An implement is wanted that will loosen the soil to such a depth as to keep it free and open, and at the same time effectually clean it from weeds and grass. Fig. 31 represents Finlayson's "Drill harrow, or horse-hoe," for working between the rows of crops. It can be regulated to any width or depth required, so as to suit the breadth of the rows. It is made of wrought or malleable iron, and the teeth should be laid with steel at the lower end.

We are not aware that such an implement as is here described is made in this country; but we hope some of our mechanics may be induced to commence the manufacture of this or a similar kind.



32—NORWEGIAN HARROW AND CLOD CRUSHER.

**NORWEGIAN HARROW AND CLOD CRUSHER.**—Another implement, calculated for cleaning the land, has lately been brought into use in England, called the Norwegian Harrow. Since it was first introduced, its construction has been somewhat modified and improved, and it is thought it will prove of great utility. It is thus described:

"The acting part of this implement consists of a frame containing four horizontal spindles, on each of which is fixed a set of cast-iron bosses, with teeth projecting from them like the rowels of a spur. These teeth revolve with the spindles, those on one spindle interworking with the others, so that they severally clear and clean each other. The effect produced is a remarkable bruising, crumbling or disintegration of the soil, without any clogging of the spikes, or possible derangement of the working parts. The weight suffices to cause the spikes to penetrate to the required depth, which is also governed by an adjustment of the wheels applied for travelling the implement, and for taking it out of work when turning; but it acted quite as well when divested of the wheels and of other paraphernalia, which tended rather to embarrass than to assist its good action. Neither stones nor sods appear in any way to obstruct the way of this eminently simple machine, the stones being pushed aside and the sods torn to pieces. The force was thought to be less than that required to work a common set of harrows going equal depth, and the effect in pulverization much greater. It was tried on two different kinds of soil immediately after plowing, with similarly good results."

At the meeting of the Royal Agricultural Society in 1847, this implement was subjected to the examination of a committee, who spoke favorably of its operation. They observe that "it is capable of thoroughly breaking up the furrow slices from three to six inches deep, as the farmer may require, leaving the soil in a beautifully pulverized condition." It worked the breadth of five feet at a time. Its effect on the soil is different from that of the clod-crushing roller, as the latter leaves it firm and comparatively compact, while the Norwegian harrow leaves it perfectly light and loose.

Look well to cows and ewes which are about to bring forth young. It will be proper to give them a little meal, and oil-cake, for 2 or 3 weeks before parturition.

## The Poultry Yard.

### Varieties of the Domestic Fowl.

**CRESTED FOWLS.**—Of the different kinds of domestic fowl, those having a crown of feathers, proceeding from a fleshy protuberance on the back of the head, may be regarded as among the most ornamental, and cannot fail to attract the attention of the *fancier*. Their origin is unknown, but they have existed a great length of time, and were described by Aldrovandus, several hundred years ago. This tribe embraces several varieties, which are found in various countries of Europe, and have been brought to America. Several of these



33—SPANGLED POLAND FOWL.

varieties are held in great esteem by poultry fanciers, and are cultivated with great care on account of the peculiarities possessed by each. In size, the tribe generally, is about a medium. They are good layers, seldom wanting to sit, on which account it is best to have their eggs hatched by some other breed, whose natural constitution better adapts them to raising chickens. They are occasionally met with, having five toes to each foot, like the Dorkings, and as is sometimes the case with the Bantams. The principal varieties of crested fowls are the following:

1. *The Black Poland.*—The cock and hen are both of a glossy black, the head ornamented with a crest or top-knot of white feathers. This variety has been considerably disseminated in this country.

2. *The White Poland.*—A beautiful fowl, when well bred, entirely white, with a large top-knot of the same color as the body. A sub-variety of this stock was formerly in existence, which were pure white on the body, with black top-knots. It was described by Aldrovandus, but is supposed to be now extinct.

3. *The Spangled Poland.*—This breed, (fig. 33) is described by Martin as follows:—"The spangled Polish is a very beautiful and valuable bird, and by no means of every day occurrence. The plumage generally is of a clear orange, with shades of brown and green, every feather being tipped with white, so as to produce a spangled appearance. The hackles are green and orange-brown; the thighs black, more or less spangled with golden yellow. The hen is of a golden yellow, shaded with brown, and spangled with white. This breed is valuable, not only for its beauty, but for the excellence of its flesh. The hens are good layers, and make attentive nurses."

4. *The Spangled Hamburg.*—This is the name given by Martin to a variety which has been known in this

country, as the "Golden Top-knot," and "Pheasant Top-knot." Some accounts represent it to have been produced by a cross of the English pheasant with the Black Poland fowl. "The general color is golden or orange-yellow, each feather having a glossy dark brown or black tip (not white,) particularly remarkable on the hackles of the cock, and the wing coverts, and also on the darker feathers of the breast. The female is yellow or orange-brown, the feathers in like manner being margined with black. Birds thus colored are called *golden spangled*, but there is also a *silver spangled* variety, differing in the ground color of the plumage, being of a silvery white, with perhaps a tinge of straw-yellow, every feather being margined with a semi-lunar mark of glossy black. Both varieties are extremely beautiful, and the hens lay freely. First-rate birds command a high price, and the same observation applies to the spangled Poland."



34—THE SPANISH FOWL.

**THE SPANISH FOWL.**—Of this excellent and beautiful variety, (fig. 34,) there have been but few specimens introduced to this country; and as we have not sufficient acquaintance with it to justify us in giving a particular description, we copy, entire, that of Mr. Martin, who appears to hold the breed in high estimation.

"Like the Black Poland, this breed is clad in glossy sable plumage, but is not crested with a top-knot; on the contrary, the comb is remarkably large, single, and often pendant on one side; the wattles are extremely developed, and the skin below the ear on each cheek is *white*, contrasting strongly with the scarlet of the comb and wattles, and the glossy black of the plumage. The cock is a noble and stately bird, remarkable for size and height; it is in fact, superior in stature to all our domestic races, if we except the Kulm, or Malay fowl, and at the same time it possesses excellent symmetry. The hen is also of large size and good figure. Brought originally, as it is believed, from Spain, this breed is nevertheless very hardy, and is reared as easily as any of inferior importance. To those who breed fowls for the sake of the flesh and eggs, this fine variety cannot be too strongly recommended. The flesh is delicately white, tender, and juicy, and the hens are free layers. Some persons complain that the hens are far better layers than sitters. Better layers are none, but we cannot say that we subscribe to this complaint; indeed, a breeder of these fowls, for his own use, in the neighborhood of the writer, affirms that the hens made excellent sitters and nurses, and he has had many years'

experience respecting them. The eggs are of very large size, and of first-rate flavor.

"Inferior cross-breeds of this Spanish variety are very often to be seen; but such are not worth keeping. Let the pure strain only be adopted; it may be preserved from degenerating by the occasional introduction of males of the same race, and up to the mark in every point, which have descended by a collateral branch from the same root, and which have therefore, only a remote connexion with the stock to which they are admitted. It is thus that breeders may often benefit each other by mutual exchanges."

## The Horticultural Department

CONDUCTED BY J. J. THOMAS.

### Laying out Curved Walks.

SINCE the attention of men of taste in our country, has been more directed to an improved style of laying out grounds,—and particularly in the rejection of stiff lines and straight walks, and in the adoption of pleasing curves,—the want of an easy and certain mode of reducing plants to practice, and of staking out any desired curves upon the ground, has been much felt by the inexperienced. We therefore lay a very simple mode for this purpose before our readers.

Take a ten-foot pole (or of any other convenient length) and place it upon the ground in the direction of the commencement of the intended walk, shown in the annexed figure by the line A. B. Then measuring on



one side of its forward end, one, two, three, or more inches, according to the length or shortness of the curve, stick in a small peg at this measured point, and another close to the middle of the pole. Then slide the pole forward half its length, bringing it close to the two pegs, and then measure off the same distance again from the forward end, and continue to repeat the operation till the desired curve is formed. An inspection of the figure will nearly of itself explain the mode. A long curve may be made to pass gradually into a shorter one, and vice versa, by gradually increasing or diminishing the distance measured from the forward end of the pole.

If one inch is the side distance at each successive measurement, the radius of the curve thus formed will be about 330 feet—from which an increase or diminution in size, may be easily reckoned, and applied in practice.

### Dwarf Pear Trees.

F. R. ELLIOTT, in his report on fruits to the Ohio Convention, says that without resorting to the early fruitfulness produced by quince stocks, but from standard trees on pear stocks, he has obtained fruit in the following periods:—Bartlett and Wurttemberg in two years from the bud; Lewis and Foster's St. Michael, in three years from the bud; Amire Joannet, Museat Robert, Duchesse d'Angouleme, Dearborn's Seedling, Fine Gold of Summer, Ne plus Meuris, Passe Colmar, White Doyenne, and Columbia, in four years from the bud. He is of opinion that in ten years, pear trees upon pear roots only, will be sought by the planter, except in small town gardens.



## Ohio Fruit Convention.

The unparalleled increase in the dissemination of fruits through all parts of our widely expanded country, is giving a new feature to pomological investigation. Where formerly half a dozen neighbors could hardly be brought together, for the sole purpose of discussing fruits, we now have large organized conventions, not only from all parts of a large state, but from half the states themselves in the Union.

The fruit growers of Ohio, held in 1847, the first convention of the kind in the country, the proceedings of which were published at length in pamphlet form. With untiring enterprise, they have now given to the public, in a closely printed pamphlet of 64 pages, a full account of the second convention, held last autumn at Columbus.

The convention consisted of 25 delegates—a more convenient number for comparing fruits by cutting up and eating, than the 70 at Buffalo, or the 250 at New-York. A. H. ERNST, of Cincinnati, presided, and M. B. BATEMAN and F. R. ELLIOTT served as secretaries, —by the latter of whom, the present able report was chiefly drawn. A valuable feature consists in the various recorded opinions from the different delegates given in relation to each fruit. This mode of communicating information cannot fail in any case to be useful, and it is commended to the attention of future conventions elsewhere.

During the two days, more than eighty varieties of apples were examined and discussed, including mostly old or known sorts, good and bad, with some new seedlings. Of the latter, several outline figures are given.

Besides the record of the proceedings, there is an elaborate and valuable paper from F. R. ELLIOTT, on the fruits already proved in northern Ohio; a very interesting communication from C. SPRINGER, on the fruits of central Ohio, and the changes wrought upon many well known varieties by the soil and climate of that region; and an excellent paper by Prof. KIRTLAND, on the use of *special manures* for fruit trees, with a statement of some very successful experiments with their use.

The following list of apples, was compiled by the secretaries from the reports of the Convention for the two years it has been held, from the characters given by the members; it cannot fail to prove valuable to Ohio fruit raisers, and interesting to cultivators elsewhere, as showing the changes wrought by different localities in some of the best standard varieties:—

## I. FIRST RATE, and deserving further attention.

Early Harvest,	Cooper,
Summer Sweet—in southern O.,	Fall Wine,
White Juneating—on account of early ripening.	Rambo,
Large Yellow Bough,	Westfield Seekno further,
Summer Rose,	Belmont or Gate—except in some sections of south Ohio,
Early Strawberry,	Yellow Belle fleur,
Red Astrachan—only for market culture,	Esopus Spitzenberg,
Summer Queen,	Am. Golden Russett,
Golden Sweeting,	Roxbury Russet,
American Summer Pearmain,	Willow Twig—only as a keeper,
Lowell,	Green & Yellow Newtown Pippin,
Jersey Sweeting—not known in southern Ohio,	Swar,
Porter,	American Pippin—only as a keeper.
Fall Pippin—by majority—some dissenting.	

## II. SECOND RATE—or good for cooking purposes.

Gnetting,	Sweet Pippin,
Early Chandler,	Gloria Mundi.
Gault's Belle fleur,	Gilpin or Romanite,
Summer Cheese,	Baldwin—on account of dry rot,
York Russet,	Michael Henry Pippin,
Maiden's Blush,	Cracking apple,
20 ounce apple,	Kaighn's Spitzenberg,
R. I. Greening—except for some few sections and until experiments can be tried in manuring it with ashes, &c.	Black Apple,
	Pumpkin Sweeting,
	Lumber Twig.

## III. THIRD RATE—or worthless.

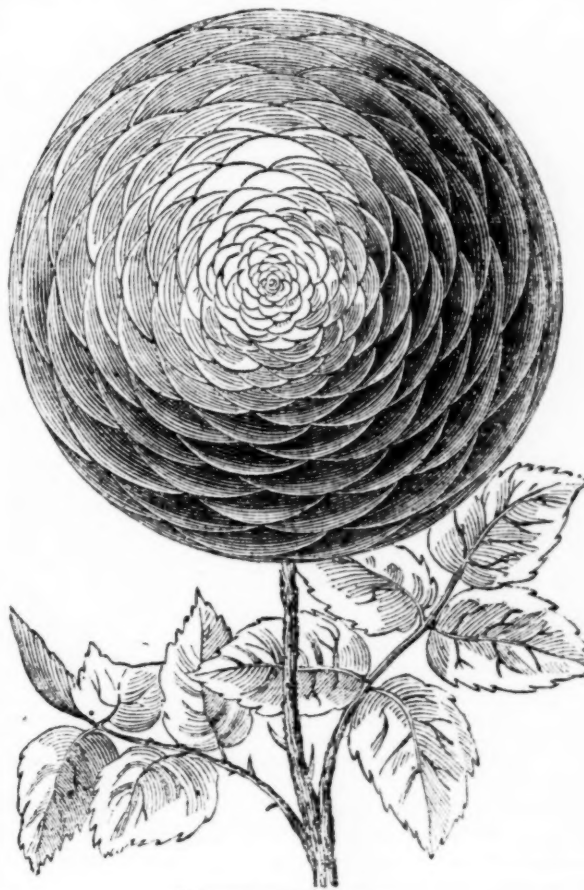
Augustine,	Golden Gage,
Slug Sweeting,	Edgington,
Gloucester White,	Black Gilliflower,
Prolific Beauty,	Alexander,
Colvert, or Pound Pippin,	Cheeseboro Russet.

## IV. NO DECIDED OPINION EXPRESSED.

Tart Bough,	Seekno further of Cox,
George apple,	Polly Bright,
Williams' favorite—not sufficiently known,	Newark Pippin,
Spice Sweet,	Roman Stem,
Drap D'Or,	Pomme de Nieve,
Trenton's Early,	Winter Cheese,
Catline,	Winter Pearmain,
Gravenstein—not generally known.	Fall Harvey,
Dyer,	Western Spy,
Wonderlich Spice,	Flushing Spitzenberg,
Beauty of Kent,	Danvers Winter Sweet,
Orndorf,	Carolina Red Streak,
Late Strawberry,	Cable's Gilliflower,
Sweet Belle fleur,	Peck's Pleasant,
Killer's Maryland Red,	Brabant Belle fleur,
Gabriel,	Ribston Pippin,
Hicke's winter sweet, Springer's Seedling, and other new seedlings,	Ohio Nonpareil,
White Pippin,	Cumberland Spice,
Federal,	Red Calville,
	Laquier,
	Scarlet Pearmain,
	Court of Wyck,
	Scollop Gilliflower.

## The Perfect Rose.

The astonishing improvement effected in the Rose by skilful and scientific cultivation cannot be appreciated but by those who have seen the finest specimens. The neat and delicate forms which some of the best assume, is in striking contrast with the old, loose, irregular, semi-double varieties. As a specimen of "a perfect



36—THE PERFECT ROSE.

rose," in form, we have copied the above figure from *The Horticulturist*, for although it has not been very closely approached in its accurate circular form, yet we not unfrequently find specimens of some of the best varieties, and particularly of some of the hybrid China roses, quite nearly imitating it in the beautiful and regular imbrication of its petals.

### The Cherry Plum.

This pretty and very early plum, is quite different in its character from our other cultivated varieties, being in itself a distinct species, (*Prunus cerasifera*), and is supposed to be a native of North America. The tree is thorny, has a small bushy head, and bears small, pointed leaves.

With the exception of the White Primordian or Jaune Hative, it is the earliest plum known; and although of only pleasant flavor, it is valued for its ripening at midsummer, when the brilliant scarlet surface of the fruit, contrasting with the dense and dark green



37—THE CHERRY PLUM

leaves, gives the tree quite an ornamental appearance. But its value is greatly lessened by its scant productiveness. This difficulty, we are informed, has been overcome by *root pruning*. Further experiments on this point are needed; and if it may be thus rendered productive, it would prove a valuable variety, on account of its extreme earliness. Its little liability to the *leaf-blight* is another characteristic, which renders it still more desirable that further experiments may be made towards the increase of the amount of its crop.

### Remarks on Fruits in Ohio.

The following interesting facts are drawn from the Report of the Ohio Fruit Convention of 1848:—

**Fire Blight.**—C. SPRINGER, speaking of fire-blight, remarks, "Experience satisfies me, that if we would succeed with the *pear*, we must either select such kinds as are naturally of slow growth, maturing their wood as they proceed, as the White Doyenne, Seckel, and others, or we must set them in thin soil. On dry hard points or banks, which have little moisture, they will advance moderately. I have seen fast-growing trees, thus situated, remain for more than twenty years, unscathed by blight, while the very same kinds, in moist

rich soils, in sight of them, were soon exterminated." In one instance, however, it is stated, that pear trees succeeded finely on low ground, but it was found that the subsoil was a dry bed of sand.

**Special Manures.**—Prof. KIRTLAND states that on a worn out piece of land, that would not produce wheat, pear trees would not grow more than two to six inches in a season, apples but little better; but the peach and cherry flourished finely.

Gypsum, clover, leached ashes, and a little barn manure, in two years, brought plenty of straw, with only 11 bushels of wheat per acre. A second plastering, clover turned in, barn and slaughter-house manure, and phosphate of lime, brought, without increasing the straw, 19 bushels of excellent wheat per acre. Phosphate of lime, ashes, barn manure, with a little salt, caused the pear trees to grow freely and bear well.

**Rawle's Jannet.**—C. SPRINGER says that this celebrated apple, "in March and April, is hard to beat for cooking and eating. The tree blooms ten days or two weeks later than most apples, and, in consequence, once in ten or fifteen years, makes a splendid hit at bearing when all others fail [from spring frosts.] The objection to this is, there are too many knotty and under size."

**Baldwin.**—"This fruit, one of the best winter apples in Connecticut and Massachusetts, when raised at Marietta, in this State, is but a temporary fall fruit."

**Royal George Peach.**—F. R. Elliott says, "I cannot see any thing in this variety to recommend it."

**Early Tillotson.**—"This fruited as early as Early Anne, and is a much superior fruit, decidedly the best very early variety." F. R. Elliott.

**Crawford's Early.**—"I have seen this beautiful and large peach in New Jersey, but the specimens grown here equal, if they do not surpass, any I have seen in its native state. Several specimens measured ten and a-half inches round, none less than nine inches, and some eleven. It is a rich golden yellow, with clear, rich red to the sun." F. R. Elliott.

### Transplanting Evergreens and other Trees.

**EDS. CULTIVATOR.**—In the third number of this year's *Farmer & Mechanic*, I found an article entitled "Transplanting Evergreens," credited to *The Cultivator*, which has induced me to send you this communication. There are three methods recommended in the article in question.

The first—"to cut a trench late in the autumn around the roots of the tree to be removed, leaving a ball of earth about the roots, proportioned to the size of the tree; after this is frozen, and during the winter, the trees, with the frozen ball of earth, are to be lifted by the aid of a stout lever. They can then be drawn upon a sled and placed the north side of a barn, or other building, and having straw, old hay, or saw dust packed about the frozen balls, they will remain unthawed, till the proper season comes round to set them out."

By the other two methods, the ball of earth is to be raised without freezing; in the one case to be tied up in matting, and in the other, to be allowed to freeze after the tree with the ball has been raised from its natural position to the surface. These last methods may do very well for small trees, but for the transplanting of larger ones, the first is much to be preferred; for a ball of earth sufficient to contain the proper quantity of roots for a large tree, could not, when unfrozen, be raised from the hole in which it stands, without breaking it.

The objections to the first mode suggested, are—1st. A second lifting of the balls of earth, and transporting to the place of setting out. 2nd. Where a large number are to be transplanted, particularly large trees, it would be difficult to find room enough on the north side



of a barn; or hay or straw enough to cover them without using a rick.

I have had much experience in the transplanting of trees of all sorts, particularly evergreens—60 or 70 each winter for several years, and have been very successful, and if it will not make my article too long, I propose to give the details of my method for the benefit of your readers. It is the same as that first mentioned, except that I plant the trees as soon as moved. The chief labor and difficulty consists in placing a heavy ball of earth, weighing from 1 to 6 tons, upon the sled (or rather stone boat, for I find that far preferable,) and once there, I do not want to remove it, except to be placed in the hole where it is to remain permanently. To be able to do this, cover the ground six inches deep with stable manure and litter in a circle 8 or 10 feet in diameter, on the spot where the tree is to be set. There will then be no difficulty in digging the hole when necessary, for the manure will have kept out all the frost, and you will have fresh, dry and warm mould to place about the tree for the young fibres to run into. If the soil be not good, another spot (beside an old stone fence, or on the turning of a field,) should be kept free from frost to dig good earth from. The best mould that can be had should be used for this purpose—it makes an immense difference in the subsequent vigor of the tree. After the tree is planted, and the hole nearly filled up, the manure may be spread on the top, and that again covered with earth. It retains the moisture and nourishes the young fibres the next summer without injuring them. Where a heavy fall of snow occurs early in the season, followed by a few nights of cold weather, THEN go to work *at once* to transplant, and half the labor is saved. The trees may be dug round, (for the snow will have prevented the frost from penetrating deeper than can easily be broken through by a pick-axe,) allowed to freeze one or two nights—and the less frozen the better, if they are only hard enough to bear the rough usage they must get—and then be set out at once.

I have transplanted trees of all kinds with stems from the size of my arm to twenty inches in diameter at the butt, and from fifteen to thirty feet high. Evergreens—at least, white pine, red cedar and hemlock, for my experience extends no farther—are the easiest trees to transplant, as they require little or no watering the next summer. Next in order, come the various kinds of elm, maple and poplar. Birch, chestnut and locust are more difficult. I have lost one out of three. Oak, hickory and beech, may as well be left undisturbed in the woods, unless taken small—say, the size of a man's arm and under. All these require watering copiously during the dry weather of the next summer, and some water the summer after.

I do not raise the ball with levers from the hole, but having broken it entirely loose at the base with levers, crowbars, &c., I hitch the oxen, by a long rope, to the stem of the tree above the branches—protecting the tree from being hacked by the rope—and then turn it down on its side. An inclined plane having been cut on one side of the hole, the stone boat is run under the ball, now lying on its side in the hole; the tree is uprighted, bringing the ball into the stone boat, the oxen are hitched to the boat, from one to three and even four yoke being sometimes necessary, and the tree is carried off standing upright. At the side of the hole where it is to be planted, it is again turned over and rolled or “cut” into its place: be careful to see that it stands perfectly straight and presenting the best side to the point from which most seen.

Should this communication prove acceptable, I will send you, another time, a much easier method of transplanting large trees from swampy ground, without freezing the balls of earth. A BOOK FARMER.

#### Apple Trees from Cuttings.

EDS. CULTIVATOR—In your publication of October last, there is a short article headed “Horticultural Humbugs,” and the first you mention is, that “the insertion of apple grafts in a potato before planting in the earth, insures the growth.” That apple grafts will not grow like the cuttings of gooseberries and currants, whether planted in a potato or any way else, I believe to be a general truth, but perhaps not absolutely so. Some particular kind of tree, under particular circumstances, *may* have succeeded by planting the graft in a potato, which may have given rise to the statement at first.

Your article brought fresh to my recollection, a fact which came under my own observation, and which I shall now relate. I spent the fore part of my younger years in the west of Ireland; while there, I was told that there was a certain kind of apple tree which could be propagated by planting cuttings in the ground the same as the gooseberry; there were small knobs on the branches; and when twigs were cut off below one of these bulbs, and planted in the ground, roots struck out from said knobs, and trees were produced, same as the parent stock. Having my doubts on the subject, I resolved to put it to the test. I procured a suitable twig and planted it in my garden, and no doubt it did start, and grew well, but that is not all. The said twig happened to have a fruit bud upon it, which not only blossomed out, but a full sized apple was matured to perfection on it that same season. Now had I not seen this with my own eyes, and done it with my own hands, it is more than probable I would have been as skeptical as you on the subject, and concluded the whole a humbug also.

What became of the young tree, I cannot tell. I very soon afterward left the place, and forgot all about it. It may be a good bearing tree to the present day. The fruit, as far as I recollect, was good, and worth propagating, and now, since the matter has been brought to my recollection, I intend to write over for a few grafts from some of these trees, and if I succeed in obtaining them, and live to see the result, you shall be duly informed. WM. FREELAND. Brockville, C. W., Jan., 1849.

#### Large Pear Tree.

EDS. CULTIVATOR—While on a recent tour along the valley of the Susquehannah, my attention was called to a pear tree standing on the bank of the river, near the upper line of the Sheshequin flats, in Bradford Co., Pa., on the farm of George Northrup. I was informed that one of the oldest settlers of that region, while accompanying Gen. Sullivan, on his expedition against the Six Nations, in 1779, found this tree surrounded by an orchard of some three acres. Orders were given to cut it down—but he begged for the preservation of this pear tree, and it was spared, it being the only fruit tree saved. I am told that it then measured,  $2\frac{1}{2}$  feet from the ground, 15 feet in circumference. In growing, it had formed a crotch five feet from the ground; one part has split off and decayed.

About one-third of the tree is still standing, and alive, but quite rotten on the inside. It now measures four feet in diameter, (that is, by measuring across the inside of the slab which still remains,) and  $9\frac{1}{2}$  feet in circumference, and bore, last season, two bushels of fruit. The inside of the part standing is quite dead—only the bark, a thin shell of the body, and a few limbs, show any symptom of life. E. C. FROST. Seneca Lake Highland Nurseries, Catharine, N. Y., Jan. 1849.

Keep cattle off the fields, when the ground is so soft that they will poach it with their feet.

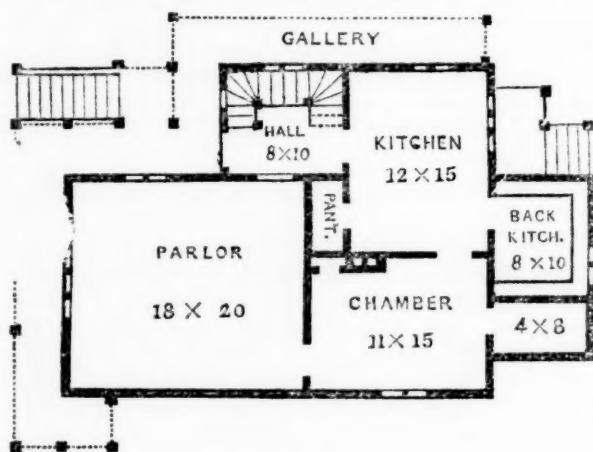


38—PERSPECTIVE VIEW.

## Rural Architecture.

### A Swiss Cottage.

THE above is a representation of a cottage in the Swiss style, erected by E. P. PRENTICE, Esq., at Mount Hope, near Albany. It is placed on the side of a considerable eminence, which gives an appropriate site for a building of this picturesque and somewhat



39—GROUND PLAN.

wild character. It is a style evidently adapted to a country of varied and uneven surface, and we think might be introduced with excellent effect in our hilly and mountainous sections. Though especially tasteful and ornamental in such situations, it admits of equal conveniences for household economy and comfort, as any other style, as will appear by an examination of the plan herewith presented. It is proper to remark that there are three good bed rooms on the second floor.

The external covering of the house is shingles, which are cut to a pattern before being laid, so as to give the appearance represented in the engraving. The frame of the house was first covered with rough weatherboarding, on which was laid a covering of tar-paper,—a cheap but useful article for such purposes, rendering the house warm and dry.

The plan of this cottage was designed by Mr. PENCHARD, an architect of Albany, who also designed several other handsome cottages, erected by Mr. PRENTICE, which have greatly ornamented his estate, and added much to the interest of the neighborhood.

## The Farmer's Note-Book.

### Indian Corn as Food and as a Crop.

BY PROF. EBENEZER EMMONS.

I believe the value of Indian corn has never been over-estimated. Possessing in itself every element which is essential for sustaining life, to supply the waste of the system which it continually undergoes; and being at the same time easily assimilated, it seems to unite in itself those properties which render it one of the most important productions of the soil.

But this does not comprehend all that may be said upon its value; we have reason to believe that many of its varieties may be employed for special purposes. Some, possessing a higher value for fattening, others as a common nutriment, in which the balance between the calorific and nitrogenous matters are nearly equally preserved, and others still, in which the nitrogenous matters considerably exceed the fat-producing or calorific matters. Indian corn, however, has rarely, if ever, been cultivated with a view to obtain from it the special advantages which its varieties possess. Indeed, if we may judge of the views of writers upon this subject, we are rather led to believe that Indian corn in its composition, is the same in all its varieties; and it may be true—indeed, ought to be true—that this grain should possess within certain limits, a composition of its own, and which is not essentially different in its varieties. Still, it is found on analysis, that some kinds are better adapted to special purposes than others, and without doubt, considering its readiness to form varieties, we have reason to suppose that if attention was turned particularly to this object, we should obtain, as we may other products, varieties which for particular purposes, would be more valuable than any we now possess. As they are now found to be constituted, some, as I have already indicated, possess advantages for particular purposes which



others do not, and for which farmers might employ them in preference to others.

Hitherto the analyses have been too few and too imperfect to determine the special advantages I have referred to. Professor Playfair's analysis has been often quoted for the purpose of showing its nutritive powers, and I may be permitted to refer to it here, along with M. Payen's and Dana's, the two first of which may be regarded as erroneous, or as only distant approximations to the truth. Thus they state respectively its composition, as follows:—

	Playfair.	Payen.	Dana.
Protein, .....	7.	4.80	12.
Fatty matter or oil, .....	5.	35.60	{ 77.09
Starch, .....	76.	28.40	
Water, .....	12.	....	9.
Coloring matter, .....	..	.20	
Dextrine, .....	..	2 00	
Cellular tissue, .....	..	20.00	
Various salts, .....	..	7.20	1 31
	100.	98.20	99.40

Some of the discrepancies in the foregoing analyses are undoubtedly due to errors in the work. For instance, the 35.60 oil in M. Payen's, and the large amount of cellular tissue. So the protein compounds in both Payen's and Playfair's are stated too low. The starch is also too high in Playfair's analysis. It is evident he includes in it the fibre or cellular tissue, and was probably induced to do so from its close similarity in composition to starch, and its uses in the animal economy. Some allowance in these analyses should be made for difference in varieties which they respectively used; as it would be quite singular if the same kind was employed in each case. That varieties are different in composition, to a certain extent, appears from several analyses which I have carefully made, and which I will now state, selecting those which exhibit certain extremes in their constitution:

	No. 1.	No. 2.	No. 3.	No. 4.
Starch, .....	49.22	41.85	11.60	53.40
Gluten, .....	5.40	4.62	4.62	3.22
Albumen, .....	3.32	2.64	6.62	8.96
Casein, .....	0.75	1.32	5.84	1.00
Oil, .....	3.71	3.88	3.60	2 80
Fibre, .....	11.96	21.36	11.24	3.20
Dextrine, .....	1.89	5 40	21.82	2 41
Sugar and extract, .....	9.55	10 00	8.00	9 60
Water, .....	14.00	10 00	10.32	12.55
	99 80	101 07	100.96	99.88

The *first*, is the large, eight-rowed yellow; the *second*, the large Ohio Dent; the *third*, sweet; and *fourth*, the calico corn.\*

If we compare the foregoing analyses with each other, it will not escape our notice, that the calico corn contains the most starch and the least fibre; and that the sweet corn contains the least starch and the most dextrine and nitrogenous matters. The Ohio corn ranks the lowest in the nutritive or nitrogenous matters. The fibre, it is possible, may not have been perfectly separated; still, judging from its coarseness, I believe, in this respect, it is not far from the truth. Its dextrine is greater than the other, excepting sweet corn, and it will probably be found that all the indented kinds contain more of this element than those which are full and plump, as the dextrine is a substance which shrinks in drying, like gum arabic. The above specimens of corn were the growth of the past season, and as they were not all equally dry, a slight difference appears in the amount of water which they respectively contain. The fattening property of Indian corn has been attributed to the oil of the grain, and its amount has been usually spoken of as indicative of its power in this respect. Those, however, who have been in the habit of feeding this grain, will hardly accept of this element as

\* The calico corn is a variety similar to the Tuscarora, except that the former is variegated in color, and the latter is white.—Eds.

being at all indicative of its value for this purpose. We certainly cannot account for its effects in fattening animals, if its oil alone was to be taken into the account. We have, on the contrary, sufficient grounds for believing that its *starch* plays a very important part in this process.—(To be continued.)

#### Improvement by Draining.

EDS. CULTIVATOR—Since Mr. HOWARD was here, in June, 1847, I have dug over 1200 rods of drains, and the greater part is laid with tiles. I should have had 800 rods more done, if I could have got tiles enough in the fall. But I have now made arrangements by which I expect not to be disappointed in the future.

There is certainly, no way that a farmer can expend money that will yield so much interest as in draining wet, moist, or even *damp* land—especially if he intends to grow winter wheat. If the land is what is called wet, and of easy drainage, (I mean such as has a porous subsoil to the depth of two to two and a-half ft.,) the additional crop of wheat or Indian corn, the first season, will do more than pay the outlay in draining; and on moist or damp soils, where more wheat will grow than on wet soils, it may take the additional crop of two seasons to pay the cost of the drainage; but on *hard-pan* land, (that is, where the hard-pan comes within eight or ten inches of the surface,) I think the time has not yet arrived that we can drain such land profitably, in this country; but on all lands that can be worked with a spade two and a-half feet deep, it will pay well to drain, if the soil is injured by surface water.

My drains have cost me about forty cents per rod, all finished; but I have now made a contract for tiles at a cheaper rate. I am also, going to lay *pipes* two inches in diameter and fourteen inches long, which will answer all purposes, except where there is considerable run of water. The cost of the pipes will be less than that of the tiles, and by filling the drains with the plow, (I have always filled with the shovel till last fall,) I think I shall be able to finish my drains for 30 cents a rod.

Last fall, I exchanged ten acres of land with a neighbor. I got ten acres of wet land for ten acres partially drained. I made the exchange in order to get an outlet for my drains, through the ten acres I obtained, part of which was so wet, that when I made the exchange, cattle and horses were liable to mire on it; and it produced only coarse wild grass like the wet prairies of the West. The day I made the exchange, I set six men to ditching the new piece, and now a pair of horses will draw a wagon loaded with two tons, over any part of it that is drained, and by far the worst of it is done. The eyes of my neighbors are on that piece of land, and it would grieve me were I not to succeed with it; but I have no doubt I shall make it as good land for grass or summer crops as there is in the state of New York.

I am sanguine that the crop of wheat could in many instances, be doubled or more than doubled by thorough draining. I am aware that damp or moist land is by some held to be best for oats. I do not admit the correctness of the idea. In the first place, such land is frequently situated in hollows, where it has the benefit of the wash of uplands, and of course has become rich at their expense, and another thing, the dry land, in this part of the country, is almost always hard run with wheat, and generally brings a fair crop, which damp or moist land seldom or never does. For these reasons it has every possible chance to bring a bulky crop of oats, when the season suits. But let the dry land have the same rest with the damp land, and in nine cases

out of ten, I have no doubt that the former will produce the heaviest crop of oats. The damp soil may produce the largest bulk, but put them on the scales, and the latter will be found wanting. Such is my experience. And with grass, also, wet or damp land generally produces the largest bulk; but every man that has pitched as many loads as I have done, knows that the hay from dry land is double the weight of that grown on wet land, when the produce of both is in the same state of dryness; and the feed, as well as the hay from dry land, is far more nutritious for any kind of stock.

I would say, therefore, drain, for the good of all crops, and for pasturage. It often grieves me, (or I might say  *vexes*  me,) to hear gentlemen whom I highly respect, and who profess to take science as their only guide in farming, say—"Is there no danger of making your land too dry?" Or—"are you not afraid that the most valuable salts will be drained from your farm?" Others say—"We always look upon your farm as rather too dry." Thus, if I had not entertained strong faith in my own practice, I should have been deterred from draining by the opinions of others.

**STALL-FEEDING CATTLE.**—Since Mr. H. was here, I have built large barns, sheds, and cattle-stalls, and have enough to fill them all; and when I get 2,000 rods more of drains made, I have no doubt I shall require more barn room. I have fifty excellent steers, 3 years old last spring, feeding for some of the eastern markets. They were all, with one exception, fit for the butcher, when I commenced feeding hay and meal. I intend to feed them till March or April. JOHN JOHNSTON. *Near Geneva, N. Y., Dec. 21, 1848.*

#### Indian Corn in Ohio.

**EDS. CULTIVATOR.**—There is no branch of agriculture in this country, and especially in the West, which engrosses more toil, and is worthy more attention than corn planting.

Maize, or Indian corn, is, perhaps, the most economical, healthful, and abundant food, which God, in his goodness, has provided, in these last days, for the sustenance of man. And yet there is no crop in which a greater diversity, and perhaps it may be added, a greater want of the necessary culture exists.

In the great valley of the Mississippi—the fertile soil and genial climate almost everywhere to be found, produce this crop in profusion, even with indifferent cultivation. It is, however, true here as elsewhere, and of this crop as well as others, that increased attention and well directed labor are amply required. Of course, no general remarks could be applicable to the whole valley—for it is a world within itself. Upon the broad prairies, where the sward, which for ages, has been the pasture of the wild horse and buffalo, is broken up by the heavy teams and massive plows necessary for the work—the planting and harvesting is all of toil, which remains in order to ensure a fair crop for a number of years.

Upon our most fertile and extensive valleys,—the Wabash, Miami and Scioto,—owing to the nature of the soil, far less labor is necessary to produce a tolerable return, than in the less favored corn regions.

Ohio is made up of hills and valleys—small valleys generally, with some little champaign country;—and the general interests of our state call for the cultivation of a variety of crops, and the practice of a well chosen rotation.

The course adopted upon my farm, is to turn under a green sward for corn—follow with wheat, seeded with clover and grass—mow one year and pasture the next—then turn under again for the next series—this is, of course, varied according to circumstances.—I have one

field, which for twenty or thirty years, has been in corn almost all of the time; and I shall plant it again next year, it having yielded a great crop the present season; but this, like much of the land along our larger water courses is frequently overflowed—and last year there was a rich deposit from the waters of the Muskingum, of some four inches of earth.

Others here adopt a system, which seems very advantageous to the sheep-growers, of sowing rye among the corn at the last working, and keeping it for March and April pasture, turning under what of the sward remains for a second crop of corn. This is found to work well upon rich bottom lands, where wheat is a precarious crop, and the green feed thus furnished is invaluable either for sheep, cows or horses.

The most common mode of culture is to plow the ground but once before planting—yet when foul with weeds, we turn under in the fall—and I have found some benefit from this course upon some soils—especially where tenacious—if the ground is very uneven and lumpy, it is harrowed and sometimes rolled.

Planting is performed in a variety of ways—some furrow out, with a small plow, four feet apart each way, others three and a-half, leaving from three to five stalks in a hill—and yet others furrow but one way, and drill plant from ten to twelve inches apart in the row. A plan which I have adopted with some success is, to furrow four feet one way and two feet the other, leaving but three stalks in a hill—in this case it is worked, first, in the wide rows; second, in the narrow ones—and after that, entirely in the wide ones.

We cultivate, generally, the first time with a cultivator or fine harrow—sometimes with a plow—the two following workings are performed with a plow—not a few using the old fashioned shovel plow. If the ground is fresh, or if rye or wheat is to be sown very early, the cultivator or plow is used for a fourth working; the crop is then laid by—*made*, as our southern neighbors call it.

In September, it is ordinarily cut up and set in shocks ready for husking; the ground is then ready for plowing and sowing in wheat.

In November and December, the corn is husked, and the corn fodder ready for use; and is either drawn to some convenient yard, or set in large shocks in the field, ready for drawing out as the stock may require.

We raise about sixty-five bushels upon an acre of bottom lands, with fair tillage. Our premium crops this year, upon hill lands, were one hundred and eighteen bushels of shelled corn per acre, with superior culture.

The average price of corn here is twenty-five cents.

We most respectfully solicit suggestions. D. E. GARDNER. *Marietta, Ohio, Jan. 1, 1849.*

#### Subsoil Plowing.

I have made several experiments with the subsoil plow, one or two of which I will state. In the spring of 1848, I subsoiled a strip of twenty feet in width through the middle of a field of Barley. At the time of cutting the grain I measured eight different pieces, each piece exactly the size of the other. I then cut, shelled and weighed each parcel separately. Four of the parcels were from the subsoiled part, and four from the part that was not subsoiled. The ground was all alike; the yield on the whole was rather slim, but the parcels that I kept separate, weighed one pound in ten more on the subsoiled part, than those did on the unsubsoiled part. I endeavored to be as accurate and impartial as possible. The soil was dry and sandy.

In the spring of 1846, I subsoiled a strip some four feet wide, through the middle of a field, and planted to potatoes. They all rotted badly—were hardly worth the digging. The weather was very hot and dry



through the summer; the ground so hard in the field that it was almost impossible to plow it, but the part that was subsoiled, plowed at least one-third, if not one-half easier than the other. **A PRACTICAL FARMER.** *Westchester Co., N. Y., Jan. 27, 1849.*

#### Cheese-Making in Virginia.

**EDS. CULTIVATOR**—I fear that a direct answer to the inquiries of your letter of the 6th inst., may place me in the false and unenviable position of "the scholar attempting to play the teacher." Allow me, therefore, to give a portion of the history, with such an "account" of my dairy as your inquiries propose to elicit.

In the year 1846, several gentlemen of the county adjoining this in which I live, and Mr. Jno. C. Underwood, of Herkimer county, in your state, determined to establish (each,) a dairy farm in this district of country. We began to purchase cows in the winter of 1847, and aided by the kind exertions of Mr. Underwood, we supplied ourselves with dairymen and utensils, from New-York, and commenced business the following spring.

I was, fortunately, enabled by the kindness of Mr. Underwood, and the recommendation of Mr. A. L. Fish, of Herkimer, to secure the assistance of Mr. H. M. Mattison, of Herkimer, and to his energy, patience, and knowledge of his business, whatever credit for success we may be entitled to, is altogether to be attributed.

In the winter of '47, we purchased our cows. Mine averaged me \$11.48. I made my first cheese April 20th,—twenty-one pounds—from 9 cows. The spring was cold and dry, the grass backward, the cows, picked up wherever we could procure them, calved irregularly—many very late—and of course, in so irregular a dairy I cannot calculate the average yield, as calculated in old established dairy countries. I give mine as yielded by the cows at the pail, believing that your object is, not to contrast the yield of Virginia dairies with the yield in New-York or New-England, but to draw forth facts which may enable northern men to form an opinion upon the relative advantages offered by the north, and so far south, for dairying interests.

On the 15th of May we milked 21 cows, and made 53 pounds of cheese—feeding 2 bushels of shorts. On the 15th June milked 40 cows, made 108 lbs.,—fed three bushels of shorts. July 15th, 52 cows, 123 lbs., fed three bushels shorts. Aug. 15th, 58 cows, 150 lbs., fed four bushels shorts. The drouth, or rather its effects, were felt until this time, after which the pasturage continued fine through the season. Sept. 15th, 51 cows, 139 lbs. Oct. 23d, 118 lbs., and commenced making butter. Nov. 15th, 43 cows, 87 lbs. of cheese. Dec. 30th, 34 cows, 34 lbs. of cheese; and by the 1st January, we had made 25,244 lbs. weight from the press.

My cows averaged me in price, when bought, \$11.48. I fattened on grass, after the 1st September, and sold in November, fifteen, at an average price of \$20. We milked out of doors until about the first of November, when we got into our stable. The cheese-house we began to use in July. My cheese-house is 60 feet long by 26 feet wide. Water is conveyed to it in pipes under ground. The stable is 104 feet by 36 feet, with stanchions for 63 cows. The cows stand in the centre, with their tails towards each other. The space between the rows of stanchions is 16 feet. The side alleys 10 feet each. There is a cellar 24 feet by 36, under the barn, for manure, which is delivered from the stable through trap doors in the floor.

Through the year 1848 we kept 63 cows, and made 34,000 lbs. of cheese. I cannot lay my hands on my

dairyman's butter account for either year. We fed whey with the shorts, keeping but few hogs. But we raised 25 calves the first, and thirty the second year. The cows had a range of nearly 400 acres of pasture, with abundance of water.

I established a second dairy last year, and shall establish a third the coming spring. The second has 40 cows, the third will have 63. The number of dairies in the adjoining county has been increased from three to six, and there is a great deal of land well adapted to the purpose. My neighbor, Lt. Col. Randolph, now offers for sale a farm of 316 acres, for \$5,000, with a grist mill, and a meadow of 40 acres, about one mile from the village.

Our dairymen are all from New-York. We use the dairy stove, (having been unable to procure a steamer,) and I believe the only variance from the New-York practice in making cheese, is to scald and salt rather higher, which we think is rendered necessary by the length of our summers. **ROBT M. MARSHALL.** *Happy Creek, Va., Jan. 19, 1849.*

**P. S.**—Our cows are considered by the northern dairymen who have seen them, as fairly averaging, in point of size and appearance, with the dairies of the north. **R. M. M.**

#### Warm Barns.

**EDS. CULTIVATOR**—So much has been said upon the necessity of keeping cattle warm in winter, that it might be supposed every farmer would have his barn warm and comfortable; but as we call upon neighboring farmers, we find many of their barns quite open, exposing their cattle to the wind and drifting snow. Many, doubtless, do not know how much more it costs to winter cattle in a cold barn than in a warm one, and that, at best, they cannot be made to thrive so well upon the same quality of food. The animal body acts as a furnace which must be supplied with fuel, and the greater the exposure to cold, the more fuel there must be to keep up the heat.

Capt. Parry, when wintering in the frigid regions, found his men lost their appetite for light food, and ate clear butter and grease, with a keen relish, and without the slightest inconvenience, and that their health and comfort required these articles of food in proportion as they were exposed to the rigor of the climate. Warmly clad travellers have found, to their great surprise, that the men in some of the northern tribes, who wear little clothing, will consume daily ten pounds of flesh, besides eating as freely of tallow candles as we do of apples. So it appears, that shelter and clothing, to a certain extent, answer the purpose of food. If we apply this principle to the wintering of stock, it is obvious a great saving may be made in hay. The cattle in the barn are so many furnaces that must be kept heated. If the surrounding medium is cold, there must be more fuel, or the cattle's flesh will be consumed to keep up the heat. The farmer, then, who has 20 tons of hay in a cold barn, may save at least one tenth of it, by expending a small sum in making his stables warm; and this saving he may make every year he fills his barn, besides having his cattle in a much better condition in the spring.

Farmers frequently buy hay in backward springs, paying high prices, when, if they had expended one-half of the money paid for the hay in fixing up their stables, they would have saved buying any hay, besides having their stables warm for future use. So the objection farmers sometimes make to repairing their barns,—that they are poor and in debt,—is the very reason why they should repair them. If they are paying six per cent. interest on their stock, they can ill afford to lose twice as much more in keeping it. Cold

barns will make a *farmer* poor, as well as his cattle. A merchant or mechanic would grow poor fast enough if he wasted ten per cent of his stock. No wonder, then, farmers grow poor who waste often more than ten per cent. of all their hay, by keeping their cattle in *cold, open barns*. The farmer had better sell a ton or two of hay, (if he cannot do it without,) and get some money to make his barn warm.

We have seen cold stables made quite comfortable by boarding them up on the inside, three or four inches from the outside boards, and filling the intermediate space with straw. The front side of the stable should also be boarded up, leaving a space open to feed the cattle, which may be kept open or closed, according to the temperature of the weather. This is a very cheap method for those who cannot build new barns, or make thorough repairs upon old ones; and it is only necessary to have it accomplished, that the farmer should *go about it*. It may be done at any season of the year, in fair weather or foul. Farmers, in what manner can you more profitably invest a few dollars? You have, perhaps, a warm kitchen, and find it much less expensive providing fuel for it than for a cold one, besides being much more comfortable for your family. You will find there is as much economy in having a warm barn, as in having a warm kitchen; and although the comfort of your cattle is not to be compared with that of your family, yet it should not be forgotten. Could the dumb brutes speak, they would tell many sad tales of suffering;—yes, and they would *argue*, too, more *feelingly* than ever a stump speaker could, in favor of *protection*. JOHN TUFTS. *Wardsboro', Vt.*, Jan., 1849.

#### Kentucky Wild Lands.

EDS. CULTIVATOR—I saw a piece in a late *Cultivator* under this head, praising the blue-grass pastures of Kentucky, and a careless reader might be left to infer that these wild lands would make such pastures. Too much praise cannot be bestowed upon the blue-grass pastures of Kentucky; and perhaps it may not be known abroad, that lands that will produce those first-rate pastures, are worth about fifty dollars an acre, whether in a wild or cultivated state. It is true there is much land in Kentucky that can be bought for ten cents an acre, and more than half the land in the state under ten dollars an acre.

Some years ago I bought a large tract of mountain land, at what I supposed to be a very low price. This land has upon it the finest timber, rich beds of coal, and abundance of iron ore. But I thought when I bought it, I could make of it a fine grazing farm. I sowed upon a small part of it, abundance of various kinds of grass seeds. The blue-grass and clover took well and thrived tolerably. But the blackberry brier, sassafras, dogwood, oak, and hickory, took better, and grew so that I had to clear the land every year. After a few years I gave it up, and for ten years past it has not yielded me one cent in rent or profit. The timber would be valuable if it was in the right place; so would the coal and iron be; but they are of no value there, because there are plenty of those articles in places that are more easily got at. If the timber was sawed into plank and lumber, it would cost as much to haul it to any place where it would sell, as it would bring. It is the same case with the coal, which would have to be wagoned seven miles over a bad road, and come in competition with coal mines upon the Kentucky river, with coal that is now sold at four cents a bushel.

I think it probable that some of the Kentucky wild lands might be made tolerable grazing lands for sheep, as the sheep would assist in keeping down the bushes. The bushes, if neglected one year upon my mountain

land, would so overshadow the grass as to either kill it or render it so feeble as to make it worthless. The blue-grass succeeds best on the mountain slopes, below the limestone cliffs. The mountains upon my place are composed of limestone and sandstone rocks. The limestone occupies the first slope from the creek, and after passing up some distance the free-stone commences, and continues to the top of the mountain. The top of the mountain is generally capped with a perpendicular sandstone rock, varying from a few to several hundred feet high. Upon the top, where the ridge is level, the soil appears to me to be quite good for that region. I have made no experiment with the ridges, but suppose they will be found nearly as valuable for agricultural purposes as any part of the mountains.

The mountains are generally easily fenced, as those perpendicular sandstone rocks will afford most of it. I am acquainted with localities where thirty pannels of fencing will inclose five hundred acres, with the assistance of the cliff. SAM'L D. MARTIN. *Near Colbyville, Ky.*, Jan. 3, 1849.

#### Culture of Spring Wheat.

EDS. CULTIVATOR—Should you think the following method of raising spring wheat worth communicating to the public, it is at your service. My land is generally a gravelly loam, some of it pretty dry. I plow meadows or pastures late in the fall or early in the spring; be sure it is well done. Go on to it before sowing with the harrow. Smooth it down well; sow from four to five pecks to the acre, (Black Sea wheat.) When the wheat is well up, sow on from 80 to 100 lbs. plaster to the acre. I have never failed of raising from fifteen to 25 bushels per acre. There is one advantage in Black Sea Wheat; it never rusts or smuts, with me.

Owing to the continual wet weather the past season, while my wheat was filling, it was not so good as usual, though I never had a better growth; but it was badly lodged. Yield, about 18 bushels per acre. I have been in the habit for several years, of raising nearly all my grain on an inverted sod. Always plaster—sometimes throw on manure, and harrow in with the grain. If the land is rich, this will cause the grain to grow too large. I consider that while the sod is undergoing the process of decomposition, it facilitates the growth of any kind of grain, almost, if not quite equal to any manure whatever. Acting upon this principle, I turn over pastures and meadows often, and think every time I do so, I add a dressing of manure. TIMOTHY BEAMAN. *Burke, Franklin Co., N. Y.*, Jan. 16, 1849.

#### Offspring of the Buffalo and Domestic Cattle.

In an article on the American bison or buffalo, in our January number, we said that there had been instances of its having bred with the domestic cattle, but that, so far as we learned, the hybrid offspring was incapable of procreation. This, we believe, is the conclusion which has been generally held on the subject. For the purpose, however, of obtaining positive information on the point, we wrote to THOMAS ALLEN, Esq., of St. Louis, Mo., who has very kindly transmitted to us the following letter, which he received in answer to an inquiry addressed to Col. O'FALLON. By this letter it will be seen that the progeny resulting from an union of the buffalo and domestic cattle, has proved fertile.—EDS. CULT.

DEAR SIR—I am just in receipt of your note of the 16th, requesting information in relation to the cross of the buffalo with our domestic cattle. I once owned a half-blood buffalo cow, with a calf by a common bull, but was unable to domesticate her, when I attempted



with the view of ascertaining how far the richness of her milk would compare with that of the domestic cow; its bag was quite small, as was its calf, which I raised to maturity. This cow with its calf, was brought to my farm with the greatest difficulty, from Jefferson county, in this State; but some two months after, in attempting to confine her, for the purpose of milking her, she broke away from all the force I possessed, leaped my post and rail fence, and returned through the city to her place of nativity, some thirty miles distant, leaving behind her calf. Hearing that she was there troublesome, I authorised her to be shot. My female buffaloes were inoffensive, tame and gentle; the males, when grown, were violent, vicious, and most dangerous; would readily break through any of my enclosures, or gates, in pursuit of my cows, preferring them to the buffalo cows.

In the course of twelve months, ten of my most valuable cows and heifers, having died, incapable of parturition; and my buffalo cows having also died from neglect or some other cause, I was induced to dispose of my bulls. No consideration would induce me again to own one. There cannot be a doubt that the cross of the buffalo with our cattle, is capable of procreation. J. O'FALLON. *St. Louis, Mo., Dec. 8, 1848.*

#### Early Peas.

This is the time to prepare for raising early vegetables. Hot-beds may be prepared for radishes, lettuce, cucumbers, tomatoes, &c. Peas may be planted in the open air, on warm ground, any time this month. We shall not be likely to have frosts of sufficient severity to kill plants of this kind, after the ground has been fairly thawed and settled. The *Prince Albert* is considered the best early variety of peas; next to this, the *Early Washington*.

A writer in *The Horticulturist* describes a mode of raising early peas, which is worthy of trial. He prepares troughs of rough boards, like a common sheep trough, eight feet long, and about eight inches wide at the top. These troughs are filled with good soil, and a row of peas planted in each of them. They are then placed in a green-house, or in a common hot-bed. His hot-bed frames are made in a cheap manner. He uses common cotton cloth instead of glass, for lights; which it is stated are as good as glass for most purposes, and cost only a fifth as much. After the cotton is stretched on the frames, it is made transparent and durable by coating it with the following composition: "three pints best old boiled linseed oil, four ounces white resin, and one ounce sugar of lead. The oil and resin must be a little heated to make them mix, and the sugar of lead must be first ground with a little of the oil, and then mixed with the remainder." A coat of this composition is given the canvass lights every season before using them.

It is only for *extra* early peas that it is recommended to put the troughs in hot-beds or green-houses. The writer alluded to says—"For my main crop of early peas, which I start about the first of March, I use nothing but the frame and the canvass lights which cover it. This gives warmth and shelter enough for peas; for a crop in the trough is growing every day with little or no attention, while in the open ground they have scarcely vegetated."

The mode of transplanting from the trough is described as follows: "As soon as the weather becomes mild and fine—say by the first of April, I prepare a spot in the kitchen garden, in which to *transplant* my early peas. This is very easily done by making a slight trench, just large enough to take in the whole trough—fill the earth up to the sides of the box, knock away the ends, and then carefully drawing out the sides,

press the mellow soil up to the earth in the trough, as the sides are drawn away. By watering the troughs beforehand, and doing the work nicely, the peas will never know they have been transplanted." It is said that peas may be obtained in this way two or three weeks earlier than can be grown wholly in the open air.

#### Hussey's Reaping Machine.

In the *Ohio Cultivator*, I observed an article headed "*Hussey's Mowing and Reaping Machine—Hussey's Patent*,"—in which the editor informs his readers, that the patent, covering my "*cutting apparatus*, expired a year ago," and that any one can now build machines embracing that principle. Ketchum, in particular, who has copied my cutting apparatus in his mowing machine, is urged to "*go ahead*." The editor is rather too fast; it is true that my original patent has expired, but the subject of its extension is now before Congress, and has been reported on favorably, and may probably become a law. It is also true that a patent was granted to me in 1847, for an improvement in the cutting apparatus. This improvement is now considered indispensable, especially in mowing machines. As the improvement last patented by me is embraced in Ketchum's Machine, I do not see how he or any other person can "*go ahead*" in building Hussey's Mowing or Reaping Machines, without infringing on my rights, unless they confine themselves to my original plan, which is now considered an old-time affair, out of fashion, and of little account, when my late improvements can be had.

As the public appear to be uninformed on this matter, and liable to be misled by the article in the *Ohio Cultivator*, I deem it proper to make this statement, as well for the benefit of the public, as to relieve my private character from the imputation of fraud, with those who know me to be receiving compensation for my patent right in the reaping machine. OBEY HUSSEY *Baltimore, Jan. 16, 1849.*

#### Action of Lime.

Hon. JOHN DELAFIELD, in his address before the Yates County Agricultural Society, made the following remarks in regard to the action of lime. They are worthy the attention of farmers.

"Lime exists in plants in various proportions, viz:—32 per cent of the ashes of oakwood is lime; 27 per cent of the ashes of poplar is lime; 14 per cent of the ashes of peas is lime, and 4 per cent of the ashes of our wheat plant is lime. Lime is an essential constituent of wheat. It *must* therefore be in our soils, or our wheat never can be matured. Lime therefore is a *direct food* for wheat, and so also for other plants.—This important element of our soils possesses several qualities, most essential and highly beneficial to the farmer. For instance, where applied to heavy clay soils, it renders them more open and easily worked, admitting the action of the atmosphere.

"In all soils containing the sulphate of iron, lime will decompose the sulphate of iron, and thereby form plaster of paris; a material well known. When we apply lime in its fresh or caustic state, it acts as a solvent, destroys the texture of matter in contact with it, or changes its nature. But when by exposure to the air this power is lost, and it becomes slacked, then it is food direct for plants.

"Now as to the best method of using lime, farmers are not agreed; and with some hesitation I will state my practice and give my reasons. We see and know that twenty bushels of wheat, if produced from a single acre, will take from that acre about seven pounds of lime:—then as a bushel of lime weighs about 72

pounds in a caustic state, it will weigh when slacked, about 100 pounds by the absorption of water; therefore *one bushel* of lime is sufficient for *fourteen acres* of wheat or thereabouts, but as this supply is for one crop only, and as weeds and other vegetation will rob the wheat of its due share, I would apply ten bushels to the acre, and feel that it is sufficient for four or five years.

"It is true that farmers in this country have applied from 60 to 100 bushels per acre, and there may occasionally be a farm where such a dose may do good, but more likely to do harm; at any rate, for the reasons above stated, it seems a wasteful and expensive system. For light soils, I would recommend a mixture of lime and muck, say one bushel of lime to a cubic yard of muck, applying 20 to 25 bushels of this mixture to an acre. But never mix lime with your manure heaps; this is a ruinous practice, because it expels from your manure its chief power; it destroys the ammonia, a salt which it is our aim to preserve."

#### Berkshire Hogs.

I have occasionally seen articles in your paper deerying the Berkshire hogs, principally on account of their want of size. To such people you may say, that I have a barrow 3 years old, a full blood Berkshire, which will now weigh nearly 1000 lbs., live weight. He was weighed on the 3d of October, and then brought down 880; since which he has improved rapidly, and will doubtless reach the above figures. I have had this breed for seven years *pure*,—descended from hogs brought from Albany and Buffalo, and a boar imported by Mr. Fahnestock, of Pittsburgh, Pa., from England—(the latter a very large animal.) The stock have all been large and very profitable—weighing at seven to ten months old, from 250 to 300 pounds. Several individuals have weighed over 400, and the sire of this present one reached 750. This is, however, much the largest I have yet raised.

I regret exceedingly, that the breed is so unfashionable here, that I shall be obliged to look for a cross from other stock. WM. LITTLE. Poland, O.: Jan., 1849.

#### Protection of Working Horses—Horse Blankets.

EDS. CULTIVATOR—I am well aware, that I have chosen a subject, with reference to which, among farmers, there exists almost an infinite variety of opinions.

One will tell us, to keep work horses *warm and comfortable by means of close stables*: another says, let the stables be pretty *airy*—but, when necessary, blanket your horses. Another says, let your horses have *cold stalls*, for they will endure the cold much better, when taken from the stable. But it strikes us, that the most proper stables for work horses, are those, the temperature of which, is about the same as the surrounding atmosphere; with the walls or ceiling so tight, that cold currents of air shall not be permitted to blow directly on a horse.

There is little danger, I apprehend, of making stables too tight, provided they are well ventilated above.

When a horse has been out in a storm, either in the field or on the road, when he is brought into the stable, like to stand where the wind is continually blowing on him—no more than a laboring man who has come from the woods, in a cold stormy day, would like to have his either warm and sweaty, or cold and wet, he does not dinner table spread for him, in a bark shanty; and destitute of fire. And besides being unpleasant and uncomfortable, it is *decidedly injurious* and detrimental to the health of either man or beast.

It is a great fundamental principle in the physical world, and a fact well known to every chemist, that

evaporation, whether it takes place from organized or inorganic bodies—from animate or inanimate substances, is a *cooling process*; and therefore, when the bodies of animals are exposed to wet and cold storms, they need to be protected from suffering injury, from the powerful influence of evaporation.

When I have been exposed to the wet storm, and my garments are filled with water, why do I not dry them on my person, instead of hanging them before the fire? Simply because there would be danger of contracting cold. If I attempt it, I soon perceive that evaporation takes place so rapidly, and such a degree of cold is generated, that my physical system is in danger of receiving a shock, which it is not able to resist or endure without injury; consequently, when nature has aroused its most vigorous reactive energies, they being inadequate to counteract the powerful influence of evaporation, it is obliged to yield to the preponderating influence; and to suffer the penalty of a violent physical law—a *cold*. But if I wrap myself in a thick cloak or blanket, evaporation is immediately checked, and the danger of taking cold is very much lessened.

Thus with the horse. Whenever he has been exercised so violently as to produce a profuse perspiration, he needs to be stationed where the wind will not blow upon him; (as a current of air is one of the prominent causes which influence and increase evaporation) and he needs to be covered with a blanket, until his hair has become so dry that he is not in danger of taking cold.

I know that there are many beings, who pretend to possess claims to humanity, who advocate that animals—horses, cattle and sheep, are so constructed that they can endure the exposure to cold and storms, and the sudden transitions from heat to cold, without injury;—but let the advocates of this theory prosecute their labors during a cold and stormy day, without warming themselves by a fire; and at night lie down upon a cold couch of straw, in an apartment where a good share of the window panes have been broken out—while old Boreas "tunes his harp high;" and prolongs his wintry notes louder and colder, and heaps the chilling snow upon their thin covering; and then tell us, whether or not, such exposures endanger their health. Then let them tell us, whether or not, the howling storms of midnight are injurious to the flesh and blood of which dumb beasts are made.

When I commenced farming operations by myself, the stable in which I kept my span of horses, during the first winter, was quite open and airy—just right as many thought and said, to make animals *tough*; and the consequence was, my horses, which were young and high spirited, now, a good part of the time, appeared *much indisposed*. As the spring approached, each one of them run at the nose, and coughed almost incessantly. I doctored them for the distemper, strangles and the heaves; and when all means proved to be of no desirable efficiency, I began to inquire after the *cause* of their indisposition; and I deliberately came to the conclusion, that for the future, my horses should be better protected from the *cold wind and storms*. Accordingly, I built a new stable, and made the walls tight enough for a store room; and since I have kept my horses in this stable, they have kept in better condition—have eaten less feed, could endure the cold much better—and have not contracted such *violent colds*. I also made a couple of HORSE BLANKETS, of which no teamster should be destitute. I purchased two worsted blankets, about two yards and a-half long and a yard in width; and lined or covered them with strong cotton factory, which was two yards wide and two and a-half long. These were then extended on the barn and painted. After they had become sufficiently dry, a crupper, a waist belt and breast straps



were sowed on them, and more *comfortable* blankets for horses I never saw. If a horse is obliged to stand in the storm, as is frequently the case, covered with such a blanket, he is kept dry and comfortable.

They are, also, an article of great durability. Six years ago, I made a pair for my horses; and I have used them with my team, summer and winter to ride on, and they will last six years more.

Perhaps India rubber cloth, lined with such worsted or woollen blankets, would subserve quite as good a purpose as oil-cloth;—but it is doubtful whether, with harsh usage, they would be as durable.

If farmers would be careful to make their stables more comfortable during the winter season, and to provide such blankets as have been recommended for their horses, when they are obliged to stand in the cold wind or storm, they would not contract such violent colds; which too often terminate in the *heaves*, or lay a foundation for some disease, from which the animal never recovers. S. EDWARDS TODD. *Lake Ridge, Tompkins Co., N. Y.*

#### To Confine Hogs in a Wagon to remove them.

Hogs may be removed almost any distance in wagons without injury, by having a leather strap buckled tight round their bodies immediately back of the fore legs, to which another strap or rope is to be attached, to extend from the lower part of the body of the hog, to the bottom of the wagon, where it is to be made fast, and sufficiently long to enable the animal to stand up or lie down at pleasure.

By the more common method of drawing their feet together and having them tied tightly with a cord, they often suffer injury from lameness, beside the uncomfortable position in which it places them. P. S. *Burlington Co., N. J., Jan. 29, 1849.*

#### Cultivation of Potatoes.

EDS. CULTIVATOR—I cultivate the Mercer potato as follows. I prepare the ground in autumn by ridging in yard manure. In the spring, as soon as the frost is out, I split these ridges and cross plow plain. I then bring on half-rotted (or more) yard manure and ashes in compost, and deposit this in heaps; the rows of heaps being five feet distant. These heaps are then spread to the breadth of two feet, and immediately ridged up. The ground between the ridges is then harrowed, and then furrowed out with a light machine, drawn by a single horse, having three large cultivator formed blades, at distances of one foot. This makes three deep drills, distant from each other 12 inches. A man then follows with gypsum and charcoal-dust, which is thickly sown. The sets or cuttings are then planted eight inches distant in the drills. These are all covered at once by a hand drag with teeth of such a form and size as will well cover the sets, and drawn by two men walking on each side of this bed of drills. Before the plants break ground, these beds are raked with iron-headed rakes and teeth  $1\frac{1}{2}$  inch long. This is a quick operation.

When the plants are well up, they are gypsumed; and when they are still upright, and before they begin to fall, the ridge of covered manure between the beds is split, and this earth and manure is taken up by the spade or shovel, and evenly spread amongst the potatoes in the bed, to the depth of two or three inches. After this operation, the space occupied by the ridge is planted out to cabbages, at three feet in the row. This is the whole cultivation which the potatoes receive.

It is absolutely necessary in this mode, in cutting the potatoes for planting, that the root and the sprout end of the potato should be thrown aside, otherwise they

will not come up together, and in consequence will very much impede the raking and after culture.

Having refused the ends, I halve the middling sized potatoes, and quarter the very largest. These cuttings, I thoroughly dry by spreading in the sun for several days before planting. I never mind how early I plant. If I could get a chance, I would do it in February. By this method, I raised 300 and 310 bushels of Mercer potatoes to the acre, not mentioning the cabbages. In this mode, the ground is kept mellow and light, for there is no foot of man or beast set upon the bed after it is furrowed. The potatoes turn of uniform size, if the season is good, and the bed is a perfect mass of well formed roots; and there is not a quarter of the weeds commonly seen in potato crops. YEOMAN. *Middletown, Ct., Feb., 1849.*

#### Variety of Indian Corn.

Mr. A. G. MOODY, of Smithfield, Isle of Wight Co., Va. writes us that he has a kind of corn, called the "South Oregon corn," which he thinks more valuable than any kind he has before cultivated. This corn, it is stated, was brought into notice by the late President HARRISON, who received it from the southern part of Oregon, in 1839. Mr. M. describes it as follows: "It is bright yellow; the ears long, with from 16 to 24 rows of grains to the ear; grains from half an inch to three-fourths of an inch in length, and very often longer; cob red, and of small size; stalk remarkably thick. The variety resists the drouth better than any I have noticed before." Mr. M. states that he has tried this corn two years, and he thinks it will yield thirty per cent. more than any kind he has cultivated. He says "it is an early variety, and thinks would suit the northern farmers admirably." In relation to this, we will remark, that it evidently (from the description,) belongs to what is called the southern or "dent" class, and would not, probably, be early enough for our latitude. It is, no doubt, a very good variety for regions to which it is adapted, though we see nothing strikingly different, (except the *extraordinary* length of the grains,) from the yellow red-cob corn that is raised in the southerly part of Ohio and in Kentucky. Mr. M. has some of the seed for sale, at two dollars a bushel.

#### Composts---Cheap Manure.

EDS. CULTIVATOR—You ask about my compost heap. I live in a large manufacturing town, with a population of 12,000 or more. I have a cart with a tight box, holding 36 square feet. I send this cart out with my oxen, and give the parties driving and filling it 75 cents for a full load of night soil; having first made a basin of dry marsh mud, of which I have abundance, into which this night soil is emptied. We have several large founderies, that use much charcoal; the dust they cannot burn. This dust they give to me; and it only costs me cartage to bring it to my night soil. Again, we have several large factories, that use anthracite coal. I take from them their sifted ashes; this costs me nothing but carting.

Again, we have other factories that use half coal, half wood. For these ashes, I give one cent per bushel. Now I mix all these ingredients into a home-manufactured pondrette. I ought to have said, that to each load of night soil I add one bushel of Plaster of Paris, which, with the charcoal dust and plaster, will render it inodorous.

Next, I buy oyster shells at  $3\frac{1}{2}$  cents per bushel; burn them with cedar bush, from a mountain lot I own. One bushel of shells makes two of lime; but I cover the heap with an equal quantity of marsh mud, which, in fact, is a species of turf. And here I have a large

source of cheap manure, at one cent per bushel. As for anthracite coal ashes, I am satisfied that on all my lands they are useful, particularly for a top-dressing for fruit trees; and on clay lands, they act mechanically in opening the soil, so that air can get down to the roots of plants.

Our soil is a red decomposed sand-stone; and lime acts most beneficially on it. I prefer small doses, say 40 bushels of slaked lime per acre, repeated every two or three years, with a bushel of Plaster of Paris per acre each year. I have found the waste of a flax-mill, after 12 months' decomposition, very valuable manure. L. L. T. *New Jersey, 24th January, 1849.*

## The Veterinary Department

### Diseases of Sheep.

**SCOURS AND STRETCHES.**—A correspondent (R. G.,) of Jefferson county, Ohio, wishes some information in reference to the cure of these diseases. He states that a neighbor of his has lost 75 out of 150 of his last year's lambs. It is said—"the disease was, perhaps, in the first place, induced by feeding on green frosted oats and clover, late in the fall. Their food and location have been frequently changed. The remarks, directions and remedies, by Mr. Morrell, have been observed and carefully attended to, but without any good effect. Once every day he selects from the main flock all those having any indications of the disease; and most generally his patience is again taxed the succeeding day in like manner. They sink down and die within a few days after the attack."

As to the *stretches*, our correspondent states that it "is troublesome, and fatal, amongst those flocks closely yarded, and fed exclusively on dry feed. However valuable Mr. Morrell's book on sheep may be, (*and I esteem it valuable*), yet, in regard to his prescriptions for the above diseases, we have not found them of any value. In this latter complaint, the food becomes dry and compact in that part of the internal structure called the manyplus. And I have always found that the quantity of medicine necessary to act as an opiate on this dry mass, will kill the animal. If I am mistaken, I will take it kindly to be set right. A valuable suggestion which I have seen, perhaps in Mr. Morrell's book, is to feed pine tops. Those who are located where they can obtain them, by feeding once or twice a week, will not, as I now believe, be troubled with this complaint. At first, the sheep will reject the pine tops, or, at least, eat sparingly; but by keeping them before them, they will soon grow fond of them."

We should be glad to receive the suggestions of those who are acquainted with this subject. The feeding of pine and hemlock boughs, we have formerly practiced, and think it to be useful. ED.

### Hoove in Cattle.

In a late number of the *Cultivator* I have read an elaborate article on "Hoove" in cattle. The first time I ever saw the disease was four years since, when a valuable short horned bull was affected. I first observed it about sundown one evening, when they were about stabling the other cattle. The persons then in the yard could not account for or explain the cause of the swelled appearance of the animal. I went to the house and resorted to the books, and discovered it was the "Hoove." The remedies recommended were not ingredients which the farmer keeps about him. About 3 o'clock, P. M., next day, I thought to look at my bull, and found him swelled to an alarming size. I then sought my manager, an Irishman; and on seeing

the animal, he asked me if I had a bottle of gin, or "apple-jack." I brought him a bottle of good Holland. He led the bull out by the chain, affixed to a ring in his nose, tied on about a yard of rope, took him to a tree, and brought his head up nearly vertically, by throwing the rope over a projecting limb. I poured the contents of the bottle down his throat, and in two hours he was entirely relieved. In one other case I administered apple spirits, and succeeded in curing the animal. I believe it will be effectual in all cases; and is a remedy almost always to be readily procured. A PLAIN FARMER. *Paterson, N. J., 1849.*

We have given spirits with good results, in cases of hoove; but in the incipient stages, we have found alkalies, as mentioned in the article referred to, a better remedy. EDs.

## Answers to Correspondents.

**FEEDING COWS.**—D. M. To obtain the greatest quantity of butter from cows, in the winter season, we should prefer feeding them on early-cut hay, which had been well cured. In addition to the hay, we would give some meal. The kinds you mention, corn, oats, and buckwheat, are good. We would mix them in equal proportions, and feed each cow from three to six quarts per day, in two parcels, one in the morning and the other in the evening.

**MR. CRISPELL'S FARMING.**—"A Subscriber," Frederick, Md. In further answer to your inquiry noticed in our January number, we are informed by Mr. Crispell that he had 20 acres in corn which produced 1,400 bushels; 7 acres in rye (on corn-ground,) produced 49 bushels; 15½ acres rye on fallow ground, 417 bushels; 10¼ acres oats, 300 bushels; 2½ acres wheat, 30 bush.; ¾ acre flax, 8 bu. seed; 2 acres potatoes, 290 bu.; 32 acres meadow, 80 tons hay; 18 acres clover, (pastured) kept 25 head of cattle from 20th May to 1st September. Mr. C. says—"from the above, compared with my account of sales, it will be seen that I reserved for seed, keeping stock, and for family use, 500 bushels corn, 167 bushels rye, 100 bushels oats, 8 bushels wheat, 30 tons hay, 80 bush. potatoes, about 100 lbs. flax, and all my corn-stalks, except 10 loads. The number of cattle wintered was 29; horses and colts six; hogs ten."

**MOCHA HOGS.**—S. B. H. Providence, R. I. The variety of swine to which the name of "Mocha" (properly Mocha,) has been given, are said to have sprung from a boar introduced from the island of Mocha, off the coast of Chili. We are not aware that there are any full-bloods in the country. We have several times seen those which had more or less of the blood. They are not large, but small-boned, and fatten easily. We do not know that they possess any superiority over crosses of the Chinese, or various other breeds.

**MUSTARD.**—D. A. W. East Dorset, Vt. A deep rich loam is best for this crop. The method practiced on the Muskingum river, Ohio, is to sow the seed (by drill or hand,) in rows, two feet apart one way—the plants to be thinned to a foot apart in the rows. The crop to be kept clean while growing. The produce per acre is from ten to fifteen bushels, though as much as seventeen or eighteen bushels have been raised.

**DEVON BULL.**—S. M. N., Marlborough, Mass. We do not know where you could exchange your bull. If you conclude to obtain another, we would refer you to GEORGE PATTERSON, of Baltimore; L. HURLBUT, of Winchester, Ct.; R. COWLES, Farmington, Ct.; and E. PHINNEY, Lexington, Mass.

**RYE MEAL FOR MILCH COWS.**—S. Y. S. Chester,



N. Y. We are unable to point to any analysis showing the value of rye compared with Indian corn, for the production of milk. But we have found rye meal mixed with cut hay, an excellent article for feeding milch cows.

**IMPROVEMENT OF SANDY PLAINS.**—C. E. N., South Berwick, Me. Clay, ashes, decomposed or rotten manure, with clover, will probably prove the best means of improving this soil. Plaster is useful in situations where it will act. This can be ascertained by trial.

**CORN AND COB-CRUSHER.**—B. F. C., Rising Sun, Va. Freeborn's mill can be operated by two horses, and will grind corn or corn and cob into coarse feed. Price, \$35.

**BLACK SEA WHEAT.**—R. G., Willett, N. Y. We think this kind of Wheat maintains its superiority for hardness and productiveness. It is considered a surer crop than most kinds of spring wheat. It is for sale at the Albany Agricultural Warehouse, at \$2 per bushel.

**SUNFLOWERS.**—L. B., Lexington Heights, N. Y. A deep loam is best for sunflowers. The seed may be planted in hills, after the ground has been prepared, as for corn, about five feet apart. When the plants are up a few inches, they should be thinned to three in a hill, and when they are a foot high, all but one should be pulled up. The ground should be kept clean with the cultivator. There are two varieties; one of which bears several flowers on branches of the same stalk, and the other a single large flower on the top of the main stalk. The latter is best. The seed is good for poultry, and for sheep. We have heard of 40 to 50 bushels being produced on an acre.

### Domestic Economy, Recipes, &c.

**BREAD PUDDING.**—I noticed in the January number of "The Cultivator," a polite invitation to Farmers' wives and daughters to furnish for publication forms and recipes for cooking. My wife is neither a farmer's wife nor a farmer's daughter, but she has some taste in culinary affairs. For desert this noon, we had a "bread pudding," which I thought so nice as to inquire into the method of preparation. She sends you the following:

Take bits of dry bread—sufficient quantity to absorb three pints of milk, and form a smooth thick batter; add a piece of butter (melted) the size of a hen's egg, two beaten eggs, and the grated rind of a lemon. Bake about three-quarters of an hour. Eat with sugar and butter. J. B. *Springfield, Feb. 6, 1849.*

**EDS. CULTIVATOR.**—My wife sends a few recipes:

**A SEASONABLE HINT—SNOW CREAM.**—Take any quantity of cream, varying according to the number designed to partake—say a pint, more or less. Add pure snow, i. e., snow free from ice or hail, until of a proper consistence; stir in pulverized white (brown will do) sugar, sufficient to sweeten it. Apply a few drops of essence of lemon, vanilla or rose water. Eat before melted. This is superior to ice-cream, and accessible to any farmer, and a very innocent luxury.

**TO MANUFACTURE KISSES.**—Beat whites of three or four eggs to stiff froth; add one-half pound pulverized white sugar, and a few drops of essence of lemon. Of this, drop a teaspoonful on white paper, and place on buttered tins, and dry in a moderately heated stove. Cool and eat.

**MOCK CHICKEN PIE.**—Boil common potatoes—season highly with salt and pepper; some prefer a little thyme or summer-savory. Pour milk over them, and stir till of a moderate paste; fill a pie dish with crust below and above the contents. Some strew pieces of

pork through it. Bake in an oven, and serve hot. A single crust, filled and doubled, is called *turn-overs*. L. T. DUFFELL. *Jacksonville, N. J., Feb. 7, 1849.*

### Agricultural Societies.

**DELAWARE STATE AG. SOCIETY.**—A convention has lately been held, and a society organized in this state. Peter F. Causey, President; John D. Dilworth, H. Ridgely, T. P. McColley, Vice-Presidents; Manlove Hayes, Jr., Rec. Secretary; A. M. Higgins, W. Duhamel, P. N. Rust, Corresponding Secretaries; Wm. Burton, Treasurer.

**JEFFERSON COUNTY, N. Y.**—Officers for 1849. Moses Eames, President; E. S. Massey, Secretary; O. N. Brainard, Treasurer. At the last meeting of this society, premiums were awarded on the oat crop as follows; first premium, 110 bushels per acre; second, 90 bushels per acre.

**CAYUGA COUNTY, N. Y.**—C. Gridley, President; John B. Dill, Secretary; C. Parsons, Treasurer; with one Vice-President for each town in the county. The Society is in a flourishing condition.

**NIAGARA COUNTY, N. Y.**—Erastus Hurd, President; A. H. Moss, Lockport, Secretary. This society proposes to procure a lot on which to erect buildings and other necessary fixtures, for the purpose of holding the exhibitions of the society.

**ONEIDA COUNTY, N. Y.**—Henry Rhoades, President; Plympton Mattoon, Rob't Waterman, Vice-Presidents; L. T. Marshall, of Vernon, Secretary; A. G. Gridley, Treasurer. Premiums were awarded at the annual meeting of this society for the following crops; 48 bushels winter wheat, 30 do springwheat, 83 bushels oats, 54 bushels barley, 114 bushels Indian corn, (four other crops of corn from 89 to 98 bushels,) 54 bushels buckwheat, 1324 bushels carrots, each grown on 1 acre.

**CORTLAND COUNTY, N. Y.**—Peter Walrod, President; Charles Taylor, Alfred Chamberlain, Moses Kinney, Chauncy Morgan, Vice-Presidents; Geo. J. J. Barber, Secretary; Amos Hobart, Cor. Secretary; Ira Bowen, Treasurer. This society paid premiums for the following crops; 87 bushels Indian corn, 82½ bush. oats, 720 bush. ruta-baga, each raised on one acre; also for 136½ bushels carrots, raised on an eighth of an acre, being 1092 bushels per acre, also a second premium for carrots, for a crop at the rate of 900 bushels.

**RENSSELAER COUNTY, N. Y.**—E. N. Pratt, President; Wm. Buswell, George Vail, Abram Van Tuyl, Alex. Walsh, Isaac Tallmadge, Daniel Fish, Joseph Haswell, Joshua S. Lewis, B. B. Kirtland, Z. P. Burdick, George T. Dennison, George W. Glass, James Turner, John Mesick, James T. Davis, Richard J. Knowlson, Dennis Belding, Vice-Presidents; John J. Viele, Recording Secretary; John Fitch, Corresponding Secretary; Frs. N. Mann, Treasurer.

**NORFOLK COUNTY, MASS.**—An agricultural society has recently been organized in this county. The officers are—Marshal P. Wilder, President; Chas. Francis Adams, Samuel D. Bradford, Ebenezer Burgess, Benjamin V. French, Cheever Newhall, Josiah L. Richardson, Vice-Presidents; Edward L. Keyes, o. Dedham, Recording Secretary; Edgar K. Whittaker, of Needham, Corresponding Secretary; Enos Ford, Treasurer. A committee was chosen to collect funds for the society. The following donations were obtained, viz: From Chas. F. Adams, \$300; Marshall P. Wilder, \$100; B. V. French, \$100; Aaron D. Williams, \$100, and \$270 from subscription members, at \$5 each. Different towns were pledged to raise the following sums: Roxbury, \$500; Dorchester, \$400, Needham, \$100; Quincy, \$100; Dedham, \$300; Dover, \$50; Wrentham, \$200; Milton, \$100.

## Notes for the Month.

COMMUNICATIONS have been received, since our last, from E. C. Frost, W. C. W., Wm. Freeland, F. Holbrook, J. S. Pettibone, John Tufts, Rob't. M. Marshall, Wm. Little, P. S., Yeoman, Agricola, Practical Farmer, D. G. Williams, J. L. Childs, A Book Farmer, Timothy Beaman, Prof. E. Emmons, A. G. Moody, Wm. Bailey, Subscriber, Prof. Robert Peter, J. McKinstry, H. C. W., Dennis Johnson, Dean, James Eaton, R. G., Isaac Hildreth, F. Holbrook, A. Wanzler, A Farmer's Daughter, Chas. Betts, S. H. Reed, Chas. E. Norton, S. T. Duffell, N. P. A., B. A. Hall, J. B. Dill, Pennepack, W. C. B., J. J. Craig, W. A. Tryon, P. S. Bunting, S. Gillespie, A. C. Richards, W. R. W., G. A. Hanchett, P. Wing, O. P. H.

BOOKS, PAMPHLETS, &c., have been received, since our last, as follows:—Geographical Memoir upon upper California, with a map of Oregon and California, by J. C. Fremont, from Hon. J. W. BRADBURY, U. S. Senate.—Report of the Ohio Pomological Convention for 1848. Elements of Agriculture, for the use of Schools, translated from the French, by F. G. Skinner, and Sheep Husbandry in the South, by H. S. Randall, from J. S. SKINNER, Esq.—Judge Beatty's Essays on the Agriculture of Kentucky, from LEWIS SANDERS, Esq.—Proceedings of the Penn. Hort. Society, and list of premiums for 1849, from THOMAS HANCOCK, Esq.—Catalogue of Western Reserve College for 1848-9.—Transactions Essex (Mass.) Ag. Society for 1848, from J. W. PROCTOR, Esq.—Report of the Boston Water Commissioners, on the material best adapted for water pipes, from Prof. HORSFORD.—The Safety Mask, or Prophylactic Protector from diseases produced by contagion, infection, or malaria, by JOHN LEWIS, of Kentucky, the inventor, from the author.—Catalogue of the Mount Airy Ag. Institute, from the Principal, JOHN WILKINSON, Esq.—Flower seeds, from T. REID, Little Fort, Ill.

We tender our grateful acknowledgments to our numerous correspondents, for the liberal contributions with which we have been favored the present winter. Some of them, of course, must be delayed; but we beg our friends, whose favors are laid over for a month or two, not to consider that it is done because we consider their favors less valuable than those published. We endeavor to make a fair selection for each month, so that one number shall about equal the others. Among the papers filed for our next No., are those of Prof. PETER and Dr. MARTIN, of Kentucky—Mr. J. S. PETTIBONE, Mr. J. M'KINSTRY, H. C. W., PENNEPACK, and many shorter ones, for "The Farmer's Note Book," and other departments of the paper.

PREMIUMS.—In our next, we shall publish a list of the persons, to whom our premiums for subscribers, received previous to the 20th of March, are awarded.

NURSERY CATALOGUES.—It would give us pleasure to comply with the requests of our friends for these Catalogues, were it in our power; but we have not had a copy from any nursery for a long time.

HEREFORD BEEF.—We lately saw five head of fine Hereford cattle, owned and fattened by Mr. EDWARD WELLS, of Johnstown, N. Y. There were four steers, coming four years old, and one cow. They were all from the former herd of Messrs. CORNING and SOTHAM. The steers were reared in the ordinary way, on hay and grass, and have only been stall-fed about three months. They are large and well-shaped, and have fattened remarkably well for the time they have been feeding. The cow has been an excellent breeder, but has become somewhat in years, and having failed to have a calf last season, it was thought best to fatten

her. The fine condition of these animals supported the high character which the Herefords maintain in England, for beef. Mr. WELLS has several choice breeding animals of this breed.

"NORTH AMERICAN POMOLOGICAL CONVENTION."—A circular has been issued by "the Committee of the North American Pomological Convention," which has been supposed, by many persons who have received it, to have emanated from the New-York State Agricultural Society, as we learn from several letters from gentlemen to whom it was addressed; and we see by the Cleveland Herald, that Professor KIRTLAND, in declining the appointment conferred upon him by that circular, alludes to the appointment as having been made by "the N. Y. State Ag. Society." Under these circumstances, it is proper that we should say that the New-York State Ag. Society had nothing to do with the circular in question, nor with the appointment of the committees named therein; nor do we suppose it to be the intention of the State Ag. Society to extend its operations beyond the limits of the State.

ALBANY AGRICULTURAL WAREHOUSE.—By the advertisement of H. L. EMERY, it will be seen that he has re-established himself at the spacious new building lately erected on the site of the Townsend House, 369 Broadway. He has here collected a large assortment of implements, all of which are entirely new, and of the most approved construction. He is therefore prepared to supply every article in his line of trade, at the shortest notice. Farmers visiting the city, will find the establishment worthy their attention.

CHEMICAL MANURE.—Attention is invited to the advertisement of the "George Bommer Manure Company," in this paper, who contemplate, it will be seen, furnishing farmers and gardeners with a superior article of concentrated manure. It is a subject with which Mr. B. has been long familiar, and if he shall succeed in furnishing an article of good and uniform quality, there must be a large demand for it.

SALE OF AYRSHIRE CATTLE.—We invite attention to Mr. BEMENT's advertisement in this number, of his Ayrshire stock. Several of the animals offered have taken premiums at the shows of the N. Y. State Ag. Society. The Ayrshires are a good breed for the dairy, and better adapted to light soils than the Short-horns.

LAWRENCE SCIENTIFIC SCHOOL.—This school, which is attached to Harvard College, Cambridge, Mass., continues in successful operation. The second term for the year 1848-'49, commences on the first of March, and will end on the 14th of July. Prof. HORSFORD will lecture upon Theoretical and Experimental Chemistry twice a week, from the second of April to the close of the term. Excursions will be made in term time to manufacturing establishments in the neighborhood, where the practical application of chemistry to the arts may be observed. Prof. HORSFORD will continue to receive special students to the course of experimental instruction in Chemistry, who will give their attendance in the laboratory from 9 o'clock A. M. to 5 o'clock P. M. The course will be modified to meet the wants of those designing to pursue practical analysis, manufacturing, metallurgy, medicine, engineering, agriculture, or instruction, and proportioned in duration to the objects and previous acquisitions of the student.

Prof. AGASSIZ will lecture on Zoology; Prof. WYMAN on Com. Anatomy and Physiology; Prof. GRAY on Botany and Vegetable Physiology; Prof. WEBSTER on Mineralogy and Geology. For particulars inquire of Prof. E. N. HORSFORD, Cambridge, Mass.

DEATH OF A FRIEND OF AGRICULTURE.—The Maine papers mention the demise of PAYNE WINGATE, Esq., of Hallowell, Me. He was a close student of



nature, in all the forms to which she was accessible to his observation, and was remarkable for the extensive fund of knowledge he had collected, under comparatively limited opportunities. He was ardently devoted to the interests of agriculture and horticulture, in which he rendered the community important benefits,—though laboring for years under infirm health. A letter lately received from JAMES L. CHILD, Esq., of Augusta, thus notices his death: "Our old friend Payne Wingate, is in his grave—quite a loss, I assure you, to several of us, who often visited him, to talk over matters and things in general, touching the interests of agriculture, &c."

We hear with much regret, of the death of Mr. THOMAS NOBLE, of Massillon, Ohio. Mr. N. was one of the best and most successful farmers with whom we have ever been acquainted. He was an Englishman, but had resided on the farm where he died for several years, and had been of great advantage to the section by the excellent examples he gave in the various departments of husbandry. His name will be recollected as an occasional correspondent of the Cultivator.

About a page of "Monthly Notices," are necessarily deferred till next month.

#### Prices of Agricultural Products.

New-York, February 15, 1849.

FLOUR—Genesee, per bbl., \$5.87½a\$6—Fancy brands, \$6.25a\$6.75.  
GRAIN—Wheat, per bush., \$1.15a\$1.30—Corn, Northern, 64a65c.—Southern, 55a60c.—Rye, 66c.—Oats, 34a36c.  
BUTTER—best, per lb., 20a22c.—western dairy, 15a18c.  
CHEESE—per lb., 6½a7c.  
BEEF—Mess, per bbl., \$11a11.25—Prime, \$7.50a\$8.  
PORK—Mess, per bbl., \$11a11.25—Prime, \$10.25.  
LARD—per lb., 6½a6¾c.  
HAMS—Smoked, per lb., 7c.  
HEMP—American dew-rotted, per ton, \$155a160.  
TOBACCO—per lb., Kentucky, 2½a7.  
COTTON—Upland and Florida, per lb., 6¾a7½—New Orleans and Alabama, 7a8½c.  
WOOL—(Boston prices) Prime or Saxon fleeces, per lb., 35a40.

American full blood Merino,..... 31a33c  
" half blood do.,..... 26a29c  
" one-fourth blood and common,..... 24a26c  
REMARKS.—Flour is firm, with a steady demand at the prices given. Beef, pork, and lard are rather dull, and prices have lowered within a few days.

#### Fruit Scions.

THE subscriber will be prepared to furnish scions for this season's grafting of the celebrated fruits of Western New York.

"Northern Spy," }  
"Norton's Melon," } Apples.  
"Early Joe," }  
"Jonathan," }  
"Swar," }

All orders, post paid, shall have immediate despatch. Price per hundred \$1. Can be sent by mail or express.

JAMES H. WATTS.

Rochester, N. Y., March 1, 1849.—It.\*



Isabella Grapes.

OF proper age for forming vineyards, propagated from and containing all the good qualities which the most improved cultivation for over 12 years, has conferred on the vineyards at Croton Point, are offered to the public. Those who may purchase, will receive such instruction as will enable them to cultivate the Grape with entire success, (provided their location is not too far north.) All communications, post paid, addressed to R. T. UNDERHILL, M. D., 310 Broadway, New York, will receive attention. He feels quite confident that he has so far meliorated the character and habits of the Grape Vines in his vineyards and nurseries, by improved cultivation, pruning, &c., that they will generally ripen well and produce good fruit when planted in most of the northern, and all the western, middle and southern states.

March 1.—It.\*

#### Mt. Hope Garden and Nurseries, Rochester, N. Y.

THE Proprietors of this establishment solicit the attention of amateurs, Horticulturists, Nurserymen, and dealers in Trees, to their present large stock of well grown, thrifty and healthy fruit trees—comprising the very best varieties of

PEARS, APPLES, CHERRIES, PEACHES, PLUMS,  
And all other fruits. Their stock of

#### Dwarf Pears, Apples and Cherries,

For Garden Culture, is the largest in the Union. The Stock of

#### ORNAMENTAL TREES

Is also very large, and can be furnished at low prices.

Our stock of NORTHERN SPY Apple trees is the best in this country, and we now offer them at reduced prices. Trees 5 to 8 feet high, \$25 per 100; 2 to 4 feet, \$12 per 100, and less per 1,000.

ROSES, including the very best varieties. Our stock of Hybrid Perpetuals is particularly large. Red Moss, fine plants on their own roots, \$15 per 100. Of PHILOXES we have a splendid collection, including all the newest and best kinds.

HEDGE PLANTS, such as Privet, Buckthorns, Osage Orange, Norway Spruce, Hemlock, American Arborvitae, Red Cedar, &c.

#### STOCKS FOR NURSERYMEN.

70,000 Pear Stocks, one and two years old.  
80,000 Quince do., fit for budding next summer.  
20,000 Paradise do. do do  
15,000 Prunus Mahaleb, do do  
100,000 Plum do do  
1,000 English Gooseberries.

One of the proprietors is now on his return from Europe, with an immense stock of trees, plants, &c. We will enumerate only a few of them, viz:

30,000 Norway Spruce, 1 to 2 ft.; 12,000 Scotch Fir, 1 to 2 ft.; 10,000 European Larch, 1 to 2 ft.; 3,000 Austrian Pines, 1 to 2 ft.; 2,000 Pineaster Pine, 1 ft.; 3,000 European Silver Fir, 12 to 16 in.; 1,000 Siberian arborvitae; 1,000 Tree Box, 5 different varieties; together with a great variety of Rhododendrons, Aucubias, Deodar Cedars, Cedar of Lebanon, Belgian Azalias, *Spiraea prunifolia*, *flor. pleno*, Berberries, Tree Pionias, &c., &c.

Priced lists of the above, together with a great variety of new Evergreens, Shrubs, Roses, &c., will be forwarded to all post paid applications.

All orders promptly attended to in the best manner. Catalogues forwarded to all post paid applicants.

March 1, 1849.—It.

ELLWANGER & BARRY.

#### Country Seat and Fruit Farm for Sale.

THE subscriber, compelled by ill health to relinquish the cares of business, offers for sale the "Belmont Farm," on the banks of the Passaic, opposite Belleville, New-Jersey, eight miles from New-York, and three and a half from Newark. The farm contains 72 acres—9 in woodland and the remainder under cultivation, with a front of 1,200 feet on the river—and springs of good water crop out on the upper part of it, forming a small stream, which runs through it at all seasons. It has upon it a comfortable stone house, new milk house, new bath house, a good barn, corn house, &c.; a number of young thorn and evergreen hedges; a new wharf, where vessels can discharge cargo (manures, &c.) at all stages of tide; and a fine fishery, where from 2,000 to 3,000 shad are caught annually. The grounds afford several superior building sites, combining beauty, extent and variety of prospect, with ease of access, contiguity to shade and woodland, and a finely diversified local landscape, should the purchaser be desirous of building a cottage or villa to suit his own taste.

FRUIT.—Besides some hundreds of apple, pear, quince, cherry, and peach trees, in full bearing, there are about four thousand young fruit trees propagated by the proprietor, from the choicest varieties, obtained from the most reliable sources, (chiefly from the Highland nurseries of Messrs. A. J. Downing & Co.) 2,000 of them have been set out with great care in "borders" well prepared; among which are—1,250 peach trees, (1,000 of them come into full bearing this year.) Kinds:—George IV., Snow, Early Tillotson, Druid Hill, Early York, Crawford's Late, Late Red Raripie, Late Heath Cling, Large White Cling, Malta, Brevoort's Morris, &c. 500 apple trees—Newtown pippin, Rhode Island Greening, Esopus Spitzenberg, Baldwin, Yellow Belle Fleur, Strawberry, Lady, Fall Pippin, Bush, Gloria Mundi, Alexander, Dutch Mignonne, Gravenstein, Swaar, Northern Spy, &c.—(50 varieties.) 900 pear trees, mostly Columbia, Beurre d'Arenberg, Passe Colmar, Winter Nellis, Glout Morceau, Bartlett, Dearborn's Seedling, Early Bloodgood, &c.—(100 rare varieties, one tree of a kind.) 1,000 Dwarf Pear Trees on Quince stocks—mostly Duchesse d'Angouleme, Beurre d'Arenberg, Dix, Bartlett, Urbaniste, Bonne Louise de Jersey, Beurre Bosc, Van Mons' Leon Le Clerc, Columbia, Bezi de la Motte, Flemish Beauty, Knights Monarch, &c.—(part in bearing.) 100 Isabella Grape Vines. 200 Cherry, Plum, and Quince trees and a selection of miscellaneous large and small fruits, ornamental trees, &c. Also, 4,000 pear stocks; 1,000 mountain ash stocks for pears.

As a fruit farm this place offers great advantages to any one wishing to cultivate fruit for the New-York market. In beauty and variety of scenery, in healthfulness of climate, in the intelligence and morality of its population, in short, in all those considerations which combine to render the region attractive and desirable as a family residence, it is believed that the vicinity of Belleville possesses advantages not surpassed by any other place in the neighborhood of New-York. One half the purchase money can remain on mortgage, if desired. For further particulars apply on the premises, or by mail to L. S. HASKELL, Belleville, N. J., or to HASKELL & MERRICK, 10 Gold-st., New-York.

March 1.—It.

### To Nurserymen, Gardeners, and Horticulturists generally.

**T**HE subscriber, for many years agent of the Highland Nurseries of Newburgh, having withdrawn from other engagements, has now devoted himself to the Commission Business, and intends giving special attention to the Nurserymen, Gardeners and Horticulturists of the country generally.

His arrangements for a regular correspondence with agents in Europe will be immediately completed, and prompt attention always given to the receiving goods from, and the forwarding goods to Europe.

He will also receive for sale, consignments of seeds or other goods, they may have to dispose of, and attend to the transaction of any business here or in Europe, with which they may entrust him. There being no such agency in the city, he hopes, by a strict attention to their interests, to render his services valuable, and respectfully solicits their patronage.

References—A. J. Downing, Esq., and A. Saul & Co., Newburgh; H. Reid, Murray Hill, N. Y., and Elizabethtown, N. J.

GEO. G. SHEPPARD,  
143 Maiden Lane, New-York.

N. B. Orders for Russia Mats, for Budding or Packing, immediately supplied.  
New-York, March 1, 1849.—2t.

### Fruit Trees.

**T**HE subscriber would announce to the public that he has for sale at his nursery, a general assortment of Fruit Trees, embracing nearly all of the choicest kinds, all of which have been obtained from the most reliable sources, or from bearing trees of well known varieties, and propagated with his own hands in the most careful manner; and a large quantity have been proved on his own grounds. His stock of apples especially, is unusually large and fine, and will be sold at reasonable prices, with a liberal discount to nurserymen and venders of trees. Persons at a great distance, wanting small trees, will be supplied at a corresponding price.

Scions for grafting or budding, of all the most rare and scarce varieties, at \$1 per 200, with a discount where 50 or 100 varieties are ordered. And large quantities of the more plentiful kinds, at reduced prices, in proportion to quantity.

Red Antwerp Raspberries by the 1,000, cheap.

Catalogues gratis to all post paid applicants.

Canterbury, Orange Co., N. Y.—2t.

C. HAMILTON.

### Advertisement.

**R**EADING ROAD NURSERY, near Cincinnati. For Sale the entire stock of Trees, Shrubby, Evergreens, Hardy and Greenhouse Plants, together with all the tools, implements, Buildings, Lease, &c., offering one of the best openings in the West, to any person desirous of engaging in the above business, being now in successful operation, with every facility for carrying on an extensive business.

The land contains nearly 10 acres of ground, handsomely situated, fronting on the Springfield and Cincinnati turnpike, 1½ miles from Cincinnati.

If not previously disposed of by private contract, the whole will be offered at Public auction, the stock of Hardy Fruit and Ornamental Trees, Evergreens, Shrubs, &c., on the 2nd of April; the Greenhouse Plants, Buildings, Tools, Implements, Lease, &c., &c., on the first of May.

Further description is deemed unnecessary, it being presumed that persons wishing to purchase will call and examine for themselves. Letters of inquiry, to receive attention, must be post paid. Address, W. HEAVER, Reading Road Nursery, Cincinnati, O. March 1, 1849.—2t.

### TREES! TREES!

#### COMMERCIAL GARDEN AND NURSERY Of Parsons & Co., Flushing, near N. Y.

**T**HE Proprietors of this Establishment, invite public attention to their large assortment of every desirable variety of

#### FRUIT AND ORNAMENTAL TREE OR SHRUB.

Their importations of everything new in Europe are annually continued, and they offer a very large variety of

#### ORNAMENTAL TREES AND SHRUBS,

imported expressly for arboreta and pleasure grounds. Their collection of Roses is annually enriched by novelties from abroad, many of which may be found described in their new work on the Rose, recently published.

#### FRUIT TREES

Receive their particular attention, and are propagated under their personal supervision; this care, with their possession of extensive specimen grounds, in which is tested every variety of fruit they cultivate, enables them confidently to guarantee the genuineness of the varieties.

Their care in pruning and cultivation enables them also to send out thrifty and well formed trees. From their large scale of propagation, they can offer to dealers very liberal discounts, where hundreds or thousands are taken. Orders or inquiries can be addressed to the proprietors, at Flushing, near New-York, where Catalogues will also be furnished.

They have formed a branch at Brighton, near Boston, and by the entire success of their trees transplanted thither, have thoroughly proved the superior adaptation of Long Island trees to the soil and climate of any part of New England.

At the season of transplanting, a salesman will be at this branch to furnish those who may prefer obtaining their supply thence.

March 1.—2t.

### Thorp, Smith & Hanchett, (Late Thorp & Smith.)

#### Proprietors of the SYRACUSE NURSERIES,

**H**AVE now ready for sale a very extensive stock of the most valuable kinds of FRUIT TREES, embracing most of the standard varieties, (including those most highly approved and recommended by the late Pomological conventions at New-York and Buffalo,) which, in vigor, thriftiness and symmetry of growth are not excelled by the productions of any other nursery in the State. Having more than forty acres now chiefly devoted to the cultivation of FRUIT TREES, they are prepared to sell at WHOLESALE as largely, at prices as low, and on terms as reasonable, as any other nursery establishment here or elsewhere. The superior quality of their trees must continue to recommend them to amateurs, who desire to unite ornament with utility; and to orchardists, whose chief aim is to obtain such only as are healthy and vigorous.

They have also, a large assortment of finely formed ORNAMENTAL TREES, and several thousand Seedling Horse Chestnuts, at very moderate prices.

Orders will be promptly attended to, and trees packed safely for transportation to any distance.

Catalogues furnished gratis, to all post-paid applications. They may also be obtained, and orders left at the store of M. W. Hanchett, between the Railroad and Syracuse House.

Syracuse, March 1, 1849.—3t.

#### Wm. Reid offers for sale this Spring,

At his Nurseries, Murray Hill, 37th Street, and 4th Avenue, New-York, and Elizabethtown, N. J.

**A** General assortment of Fruit and Ornamental Trees, Shrubs, &c. Also, a good stock of Roses, Isabella and Catawba vines, several thousand yards of Box, two years grown, bushy, and in fine order for laying edgings. The stock of Fruit also at the Elizabethtown Nursery, is very extensive, and probably contains as large a stock of Pears, Apples, &c., as can be found at any other Nursery establishment in the United States. All the fruit trees, &c., are grown and strictly attended to by the proprietor in person, which prevents in a great measure, any mistake or doubt that always attends imported trees; and all of the fruit trees, intended for orchard planting; are always invariably worked on good seedling stocks. Also, most of the new varieties of fruits, can always be had as soon as introduced, at the usual catalogue price, but of a less size when of late introduction.

The following varieties of fruit have been worked extensively, and can be supplied in quantities for orchard planting or to the trade. Pears are generally two to three years old, and the apples three years, and of a good fair size.

Price of Pears per hundred \$35, and of apples \$20.

PEARS—Bartlett, Beurre Diel, Duchess d'Angouleme, Louise Bonne de Jersey, White Doyenne, Easter Beurre, Van Mons' Leon Le Clerc, Belle Lucrative, Dearborn's seedling, Heathcot, Madeleine, Columbian Virgalieu, &c. Also, about 50 varieties worked on Quince stocks, of a fine thrifty growth, suitable for dwarf trees.

APPLES—Baldwin, Esopus Spitzenberg, Rhode Island Greening, Fall Pippin, Roxbury Russett, Swaar, Yellow Harvest, Graevenstein, Yellow Bellflower, &c.

The following Ornamental Trees can also be furnished by the Hundred, at very moderate prices, of suitable sizes for ornamental grounds, cemeteries, &c.

Weeping Willows, Deciduous Cypress, Norway Maple, English plain Silver Maple, Mountain Ash, European Larch, Sugar Maple, Catalpa, Alnus, Linden, European Ash, Norway Spruce, Balm of Gilead, Fir, Arbor Vitæ, &c.

MAGNOLIAS, viz.—M. macrophylla, triptela, glauca, acuminata, ariculata, conspicua, soulangeana, purpurea, &c. Most of these can be furnished by the dozen or hundred.

The following Shrubs, Vines, &c., can also be furnished by the dozen or hundred:

Honeysuckles of sorts, Chinese and American Glycines, Bigonia grandiflora, and radicans, Clematises, Ivys, Snowballs, Lilacæ, Syringa, Laburnum, Pyrus japonica, Venetian Sumac, Spiræa, Deutzias, &c.

Hawthorn, Honey Locust, Privet, Buckthorn, Osage Orange, Arbor Vitæ, &c., for hedging.

Orders by mail, directed to WM. REID, Murray Hill Nursery, New York, or left at the Nursery, where all orders are executed, will be punctually attended to, and put in shipping order to send any distance.

Catalogues will be sent to all applicants.

Murray Hill, March 1, 1849.—1t.

#### A Virginia Farm

**F**OR SALE, within sixteen miles of Richmond, Va., containing 253 acres of superior land, well adapted to the culture of wheat, corn, oats and potatoes. The James River and Kanawha canal runs through the premises. The situation is truly splendid, viewing the surrounding country many miles. There is a very fine orchard of apple, pear cherry and peach trees—many fine springs of superior water. The house has just been put in good repair. The outhouses are nearly all new, built in the best manner, and can accommodate 30 head of horses and cows. There are two churches, a post office, tavern and physician quite near. Also, a market for all kinds of fowls, meats and vegetables, within one-quarter of a mile from the farm. A saw and grist mill also in sight. One of the owners is going to California.

All information will be given, by applying, post paid, to

B. B. ALLEN, No. 19 Platt st., New-York.

March 1, 1849.—3t.



## Wm. R. Prince &amp; Co.,

SOLE PROPRIETORS OF THE  
LINNÆAN BOTANIC GARDENS AND NURSERIES,

At Flushing,

ANNOUNCE to their correspondents, and to nurserymen in particular, that, in addition to their vast stock of trees, occupying 70 acres, they have just imported 200,000 trees from Europe. They desire to forthwith receive the wholesale orders of nurseries and others, to which immediate replies will be made, stating the lowest rates, so that all engagements may be perfected now, and forwarded as soon as the spring commences. A credit will be given, or an extra discount made for cash, in whole or in part.

The following, we have a very large stock of:

Pears, on the pear and quince stock, of all sizes, 1 to 5 years from the graft, of which 12,000 are in a bearing state.  
Apples, Cherries, Plums, Peaches, Apricots, Nectarines and Quinces, of all the choicest varieties.

Grapes—all the foreign table varieties, and all the good American varieties, including many thousands of Black Hamburg, Golden Chasselas, White Sweetwater, Bar sur Aube, Isabella, Catawba and Clinton.

Raspberries—Fastolf, Red and White Antwerp, Franconia, Large Fruited, Monthly, &c.

Gooseberries—all the choicest Lancashire varieties.

Currents—Red and White Provence, Dutch, Victoria, Cherry, &c.

Strawberries—a collection surpassing all others, in Europe or America.

Rhubarb—Leviathan, Victoria, Tobolsk, Dalley's Giant, and other fine varieties.

Paradise Apple Stocks and Pear Stocks, two years old.

300,000 Ornamental Trees, and Shrubbery of all kinds and sizes.  
100,000 Norway Spruce, Balsam Fir, Silver Pine, White Spruce, American and Chinese Arbor Vitæ, and other evergreens of all sizes.

3,000 Rhododendrons, 2 to 4 feet, of the finest varieties.

60,000 Roses, of all the finest Perpetual, Daily, Tea, Moss, and other classes, at very low rates.

Hedges—Osage Orange, Buckthorn, Hawthorn, Evergreen, Privet and others.

Bulbous Flower Roots—the finest of every class.

Dahlias—200 very select and superb varieties.

Camellias—400 varieties of blooming size, at low rates.

Chinese Azaleas—70 splendid varieties, very cheap.

Pæonies, Carnations, Chrysanthemums, Phloxes, Iris, and other beautiful herbaceous plants, very cheap.

Scions for Grafting, and Cuttings of Ornamental Trees and Shrubs.

The only extensive collection of bearing specimen trees, in this town, belongs to this establishment, and insures the superior accuracy of the trees grafted therefrom. Every rose and strawberry premium were awarded by the L. J. Horticultural Society, to this establishment the past season. Flushing, March 1, 1849.—1t.

(Extract from the Genesee Farmer.)

## Profits of Fruit—Northern Spy Apple.

BY RICHARD J. HAND

MR. BARRY—Below I give you a statement of the products of one acre of land, on which I have grown the Northern Spy and Roxbury Russet Apples, during the year 1848.

110 barrels Northern Spy sold at \$2.50,.....	\$275 00
10       do       do       at 3 50,.....	35 00
30       do       2d quality, at 1.00,.....	30 00
100 do Roxbury Russet, do 1.00,.....	100 00

\$440 00

I sold the Spys mostly, to J. H. Watts, at Rochester. If any of the Monroe county farmers have a better story to tell, let's have it. They were grown on twenty-three trees.

Mendon, N. Y., December, 1848.

50,000 APPLE TREES, of the celebrated Northern Spy, (being the finest late spring apple grown in North America,) for sale at the Old Rochester Nursery, at Rochester, New-York, by S. Moulson.

1,400 trees, 7 feet high, at 50 cents each.
6,500 do 5 to 6 feet high, at 37½ cents each
10,000 do 3 to 4 feet high, at 31 cents each
33,000 do 2 feet high, at 25 cents each.

The above are all root-grafted. The small trees are fine for shipment to Europe. Orders for the 2-ft. or 3 to 4-ft. trees will be delivered in N. Y. or Boston free of charge for transportation when ordered in quantities of \$25 or over. Sterling exchange received for foreign orders, at \$4.90 to the £. European orders properly packed for the voyage, for which a moderate additional charge will be made.

The Scions from which the above trees were grown, were obtained chiefly from Mr. Hand's trees, and are guaranteed to be genuine.

Also, a general assortment of  
APPLE, PEAR, PEACH, CHERRY, PLUM, APRICOT, NECTARINE, and other fruits; together with the usual assortment of Ornamental Trees and Shrubs. And one thousand plants of

## GIANT RHUBARB.

A variety that outsells any other offered in this market, and has invariably taken the first premium of the Horticultural Society of the Valley of the Genesee.

March 1, 1849.—1t.

S. MOULSON,  
36 Front St., Rochester, N. Y.

## To Farmers.

THE LODI MANUFACTURING CO., have now on hand and ready for sale, a large quantity of their NEW AND IMPROVED POUCKETTE freshly manufactured.

They guarantee that every barrel or bushel they sell contains 66 per cent of night soil, and point to a reputation of ten years standing, as well as to the heavy outlay of capital in their business, as in some sort a surety against imposition.

Considering night soil as the strongest ingredient in their Poudrette, their mode of manufacturing is simply to disinfect and add sufficient vegetable fibre to absorb moisture.

Two barrels (\$3 worth) will manure an acre of corn in the hill, planting four feet apart each way. One application is sufficient on good ordinary ground. On poor ground a second application is sometimes necessary to ensure a good crop. This manure has advantages in its use over guano or other manures, being the cheapest and quickest in operation. Corn manured with it will grow more vigorously, and mature earlier—while the yield is heavier in proportion.

Four bushels struck measure, are packed in a barrel. It will be sold at the following prices, delivered in New-York free of cartage or other expense: 1 bbl. \$2—3 bbls \$5, 9 bbls. \$10.50, and at the rate of \$1.50 per bbl. for any larger quantity. At the Factory, 25 cents per bushel will be charged. A trial is respectfully asked.

All orders containing a remittance, with directions to ship, will be immediately attended to.

Apply, if by letter, post paid, to The Lodi Manufacturing Co., 51 Liberty st., New-York.

March 1.—2t.

## Ayrshire Cattle For Sale.

THE subscriber having disposed of his farm, will sell at public auction at Three Hills Farm, on the Cherry Valley Road, 3½ miles west of Albany, on the 14th of March next, his choice herd of Ayrshire Cattle, consisting of the imported cow "Alice," her daughter, "Fairy," for which the first premium was awarded at the fair of the New-York State Agricultural Society, held at Saratoga Springs, in 1847. "Lassie," three years, "Maggie," two years, "Norma," one year, and "Jenny Dean," 9 months old. Two year old bull and bull calf. Also, several head of cows and heifers, a cross of Ayrshire and Durhams.

These cattle, except "Alice" and "Fairy," were bred by the subscriber, are principally young, and rich milkers. Also, 2 young boars, and several breeding sows of the Medley breed.

Catalogues, with pedigrees, &c., will be furnished at the sale.

C. N. BEMENT.

Albany, Feb. 1, 1849.—2t.

## Selling Off.

LINNÆAN BOTANIC GARDEN AND NURSERY, late of WM. PRINCE, deceased. Flushing, L. I., near New-York. WINTER & Co., Proprietors.

In consequence of the decease of the Junior and of the advanced age of the surviving partner, the entire stock of this establishment, comprising every description, including the newest and choicest varieties, of

## FRUIT AND ORNAMENTAL TREES,

Shrubs, Vines, Plants, Roses, &c., will be disposed of at very reduced prices, in order to close the business as speedily as possible.

Orders accompanied with the cash, to the amount of TEN DOLLARS, or upwards, will be supplied at a reduction of 25 per cent from the usual prices.

Nurserymen, Venders, and others, wishing to purchase by wholesale, will be supplied at such reduced prices, according to kind and quantity, as will probably prove satisfactory to them.

DESCRIPTIVE CATALOGUES gratis, on application, post paid. Feb. 1.—2t.

## To Nurserymen, Orchardists and Gardeners.

THE subscriber offers for sale at his nurseries, Plymouth, Mass., the following stocks, suitable for budding in the summer, and grafting in the spring: Pear, Quince, Cherry, Plum, Apple, Dwarf do (Paradise,) Dwarf Cherry, (Mahaleb.) Also, the following ornamental stocks, 2 to 4 ft. and stout: Mountain Ash, Hawthorn Ash, Elm, Spanish Chestnut, Norway Maple, Sweet Briar, Lime, Larch, Scotch fir, (2 ft.) Silver fir, (1 ft.) Norway fir, (1 ft.) Arbor Vitæ, (15 in.) Balsam fir, (6 in.) Cedar of Lebanon, Araucaria imbricata, Red Cedar, Deodar Cedar, Chinese arbor vitæ, Lucombe oak, Scarlet oak, Althæa, Double hawthorn, (6 ft.) Copper leaved Fern leaved and Purple Beeches, Japan Pear, (white and crimson,) Deutzia Scabra, Spiræa Lindleyana, Chas. Xth, and other lilacs, Virgilia Lutea; Roses in great variety; Honeysuckles, Wistaria Sinensis, and other climbers, Clematis flammula, azurea and Sieboldii, &c., &c., &c. 50 Select Pears, standard and dwarf, fine trees 2 to 4 years from bud, and well branched, including the very best sorts. Red Antwerp, Fastolf, Franconia and River's new large fruited monthly raspberries. Cherry (new,) May's Victoria (new,) Knight's Large Red, White Crystal, and other currants. Gooseberries. Isabella, Catawba, and Black Hamburg grapes. Also, in pots, Verbenas in 30 select varieties, including Gem, Othello, Suzette, Eximia, Susanna, Exquisite, Eclipse, &c. Dahlias, including the new fancy sorts.

Descriptive priced lists sent to post paid applicants.

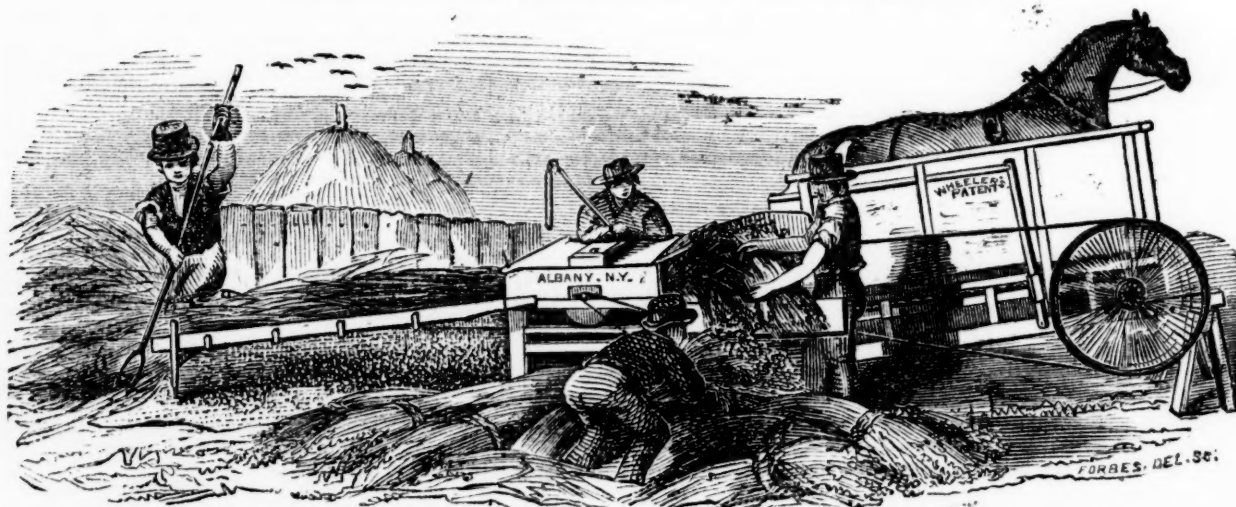
Feb. 1—4t.

B. M. WATSON.

## Agricultural Books,

Of all kinds, for sale at the office of The Cultivator.

## WHEELER'S PATENT IMPROVED PORTABLE



## Railroad Horse Powers and Overshot Threshers and Separators.

HAVING sold about two hundred and fifty sets of these Powers and Threshers during the past eighteen months, many of which were purchased by some of the large Wheat Growers in this State, Vermont, Michigan, Illinois, Wisconsin and Canada, and without exception having given entire satisfaction, (which was guaranteed in all cases,) I do not hesitate to recommend them to Farmers and Mechanics desiring such machines, as being in my opinion the most convenient, if not superior in all respects, to any others now in use. Very many flattering testimonials have been received, several of them estimating the cost of threshing at less than one half that with the ordinary sweep Powers, with from four to six horses. These machines have been extensively used in the eastern part of the state of New York, and generally through New Jersey and eastern Pennsylvania, nearly six years, and with a constantly increasing demand. The first machines put in use, and which have been in constant use, are nearly good as new; the only expense attending their use is the oil for the wearing parts, thereby establishing the fact that they are not only cheap, and within the reach and control of every ordinary farmer, but durable and cheaply kept in order. Some of the principal advantages of these machines are the following:

The power itself occupies but very little space, and is operated wholly, if desired, by the weight of the horse, the Power being placed at an angle of ten or fifteen degrees only, according to the weight of the horse, which is found sufficient for threshing all grains, sawing wood, &c. It is comparatively light and portable, and can readily be handled by two men, and used on any common threshing floor, thereby securing ease and safety both to man and beast during stormy weather. The moving parts are very simple, as sufficient speed for all purposes is obtained with but one shaft, without gearing; thus avoiding a great amount of friction, which is unavoidable in most other machines in use. The Thresher is new in many respects, and has several important advantages over most others. By having an overshot cylinder, it admits of a level feeding table, and the person feeding it stands erect, also has the control of the horse, and by means of a brake, the power can easily be checked or stopped by him with perfect safety, thereby often avoiding accidents. By this overshot motion, all hard substances are prevented from getting in, avoiding the danger of spikes being broken and thrown out—not an instance being known of such accident. By this machine, the grain is not scattered, but thrown upon the floor within three feet of it, and admits a Separator to be attached sufficiently high from the floor for all the grain to fall through it, while the straw is carried quite over in good condition for binding, the straw not being cut or grain broken. The cylinder is considerably less in diameter than most machines in use, and has only about one-third as many spikes, but double the number in the concave, which admits of greater speed with the same power. It is also, several inches longer, which gives ample room for feeding it to much better advantage. The Separator has been sold with each Thresher, and is considered indispensable, as it makes a perfect separation of the straw and grain, leaving the latter in the best possible condition for the fanning mill. Three men with a single power, can thresh 75 to 100 bushels of wheat or rye, or four men with a double Power, 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day; and with fanning mill attached to the Power, and one man to attend it, the grain can be cleaned for market at the same time.

They can be taken apart and packed very compactly, and forwarded to any distance by canal, rail road or wagon. The Single Power, with Thresher, Separator, &c., weighs nearly 1100 pounds; the Double Power, with the other apparatus complete, weighs nearly 1700 pounds.

Price of the Single Power,.....	\$20
do do Thresher,.....	25
do do Separator and Fixtures,.....	10
do do Bands for Driving, etc.,.....	5

do do Whole, in complete order for use,..... \$120

To these may be added a Fan Mill, with crank and pulleys, price \$30, and a Saw Mill, complete in running order, price \$35.

The price of the Double Power, Thresher, Separator, &c., complete, is \$145, including rights of using, or \$25 more than Single Power.

The above are sold singly or together as desired.

All Machines and Powers are warranted to perform according to the foregoing statements, and in case the purchaser is not satisfied, himself being the judge, they may be returned within three months at my expense, and the purchase money refunded.

TERMS.—Cash on delivery of the Machines. All orders should be addressed Albany, and will be promptly attended to, and Machines delivered in care of railroad, canal or steam boat in Albany, Rochester, or Buffalo, the lowest rates for transportation from Albany only being added to the published prices. Remittances by mail at my risk. That the public may rely upon the foregoing statements, they are referred to the following certificate.

"The subscriber hereby gives notice that he has disposed of his interest in the Albany Agricultural Warehouse to Mr. Horace L. Emery, who will hereafter continue the business in his own name, (at his new stand No. 369 Broadway, Albany.) All demands against the establishment will be paid by him; and all persons indebted to it, to settle their accounts with him without delay. Mr. Emery has had the entire management of the Albany Agricultural Warehouse since it has been in my hands, and from an acquaintance thus formed with him, and from his long experience in the business, having been engaged in it some ten years, five of which was spent in the establishment of Messrs. Ruggles, Nourse & Mason, at Boston and Worcester, Mass., (the largest in America,) I feel an entire confidence in commending him to the public, as one in whose integrity and judgment, the patrons of the establishment may safely rely."

LUTHER TUCKER,

Editor, Publisher and Proprietor of The Albany Cultivator, and Proprietor and Publisher of the Horticulturist.

FEB. 1, 1849.

Also to the following persons, viz:

RUGGLES, NOURSE & MASON, Worcester and Boston.

S. W. Cole, of the New England Farmer, Boston.

WM BUCKMINSTER & SON, of the Mass. Plowman, Boston.

PARKER & WHITE, Boston.

T. C. PETERS & BROTHER, Buffalo.

RAPALJE & BRIGGS, Rochester.

D. D. T. MOORE, Ed. and Pub. Gen. Farmer, Rochester, N. Y.

J. M. EARLE, of the Mass. Spy, Worcester.

J. A. WIGHT, Editor of the Prairie Farmer, Chicago.

A. B. ALLEN, Ed. of the American Agriculturist, N. Y.

We shall have an efficient agent at ROCHESTER, BUFFALO, CHICAGO and MILWAUKIE, and as far as possible keep a constant supply on hand at each point, for the purpose of facilitating the safe and speedy delivery and shipment of machines, and fulfillment of orders from a great distance, thereby avoiding the often long and perplexing delays occasioned by the irregularities of canal and lake navigation and inattention of disinterested forwarding and commission agents; and last, although not least, to avoid unreasonable charges. Shipping receipts and bills of lading always filled out and signed, and forwarded to the purchaser and consignees on the delivery of all machines.

Persons wishing either of the above machines can obtain further information by addressing me by mail—all communications promptly attended to, and orders solicited.

Albany Agricultural Warehouse & Seed Store,

No. 369 Broadway, Albany, N. Y.

HORACE L. EMERY.

Price and descriptive catalogues, Gratis.

## Red Antwerp Raspberries.

5,000 Plants of the true Large Red Antwerp Raspberry, for sale by the subscriber, at \$6 per hundred or \$50 per thousand. The Plants are large and strong, and warranted true.

S. A. BARRETT.

Milton, Ulster Co., March 1, 1849.—1t.\*



## A Good Book Coming!

## COLE'S AMERICAN FRUIT BOOK.

S. W. COLE, Esq., Author of the popular work, entitled *The American Veterinarian*, of which 22,000 copies have already been published, has, after years of patient labor and close investigation, completed his great work, entitled

## COLE'S AMERICAN FRUIT BOOK:

A work which we believe is destined to have a more widely extended circulation than any similar work, ever before offered to the American public. We believe so for the following reasons.

FIRST—It is a mature work and a practical one, one which Mr. Cole has spent many years of study and close examination, and knowing the wants of the community has met those wants, in a plain, concise and familiar manner, avoiding technicalities, and ultra scientific specifications and definitions, useful only to the few, he has made a work intelligible to all. It will be emphatically, a book for **THE PEOPLE.**

SECONDLY—It will have an unprecedented sale on account of its cheapness. It will make a volume of 288 closely printed pages. Illustrated with over one hundred beautifully executed engravings, by Brown, and will be sold for 50 cents, firmly bound in leather, and 62½ cents in Fancy Cloth, with gilt backs. It will contain full directions for Raising, Propagating and Managing Fruit Trees, Shrubs and Plants, with a description of the best varieties of FRUIT, embracing several new and valuable kinds; embellished with Engravings, and Outlines of FRUIT TREES, and various other designs. Emphatically, a

## BOOK FOR EVERYBODY,

As well for the man who eats Fruit as for him who raises it.

This valuable work will be published early in February.

## ONE HUNDRED AGENTS,

Active, intelligent and honest, are wanted to sell this book, in every State in the Union. A cash capital of from \$25 to \$50 will be necessary. Address, (post paid)

JOHN P. JEWETT & CO., 23 Cornhill, BOSTON.

☞ A rare chance for Agents to make money. Feb. 1.—3t.

## Chemical Manure

Manufactured by "the George Bommer New-York Manure Co."

THIS manure is made chiefly of Fecal Matter from the sinks, in which is mixed a small portion of substances that are of themselves, powerful agents of Vegetation, and possess the virtue to fix and retain the ammoniacal gas of the matter.

The great desideratum of the agriculturist has always been, to find out some process by which excrements might be solidified quickly, and all their fertilizing properties so strongly retained, that the manure may dissolve slowly and in proportion to the requirements of the plants, and therefore produce its effects for a time equal to that of farm manure.

This process was at length discovered by the French Chemists, and is now carried out with complete success in more than sixty of the large cities of France, where such manure factories are in full operation.

The "G. B. N. Y. M. C." has established a Factory on an extensive scale near the city of New York, in which they manufacture this kind of manure, and as the fecal matter can be obtained in this country at less expense than in France, the manure will not only be made stronger, but will be sold at a price less than in the French cities, this price being so established as to afford only the reasonable remuneration to which we are honestly entitled, the more so, as its manufacture is not of the most agreeable kind, and withal, troublesome and laborious.

The manufacturing department is under the special charge of GEORGE BOMMER, Esq., who has a perfect scientific and practical knowledge of manure matters generally; and the company has established a standard for the strength of its manure, from which it is intended not to deviate, so that its customers may at all times be furnished with an article really worth what they pay for it.

Our manure is an inodorous grain, and as the substances from which it is made contain of themselves all the elements necessary to the fertilization of the soil and growth of plants, it is extremely well adapted to such purposes.

To manure an acre highly, it requires 12 to 15 barrels, or 36 to 45 bushels spread broadcast. Applied in hills, half of the quantity will suffice. Its application is simple and easy, and printed instructions for its use will accompany each parcel sent to order.

We desire it to be remembered, that our manure has no similarity to another known under the name of "poudrette," although the principal component of ours (the fecal matter) is the same as that which is used in the poudrette, in a much less proportion; our auxiliary substances, as well as our manufacturing processes are altogether of a different nature and kind.

It belongs not to us to eulogise further, the quality of our manure; what we desire at present is, to call upon the members of the agricultural community, to try it! and we have reason to assure them, that they will find it the most profitable manure they have ever used.

## PRICES, TAKEN AT THE FACTORY:

- 37½ cents per bushel, without package;
- 50 cents per bushel, packed in Barrels, or
- \$1.50 per Barrel, package included.

Orders addressed to the above Company, at their office, 72 Greenwich St., New-York, will be promptly attended to.

By order of the Board of Trustees,

New-York, Jan., 1849.—tf

GEO. BOMMER, Director.

☞ The factory will be in full operation early in the spring, and manure can be had in April next, and at any time afterwards.

## Agricultural Warehouse and Seed Store,

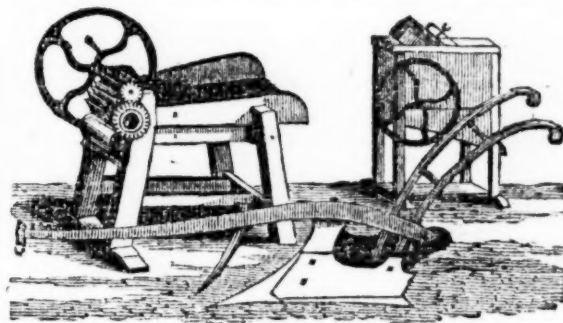
Corner of Washington and Exchange Streets, Buffalo, N. Y.

WE have opened an establishment of the above kind in this city, and shall keep constantly on hand, both at wholesale and retail, one of the largest and best assortments of agricultural implements in the Union; and shall offer nothing for sale, that we do not previously test upon the farm. Our seeds are imported from one of the most reliable dealers in Europe. Clover and grass seed we shall be able to supply to Eastern dealers on the most liberal terms.

Manufacturers of farming implements are requested to send us at least a sample.

T. C. PETERS & BRO.

Buffalo, Dec. 1—6t.



## John Mayher &amp; Co.

United States Agricultural Warehouse, 195 Front, one door south of Fulton Street, New-York City,

WHERE they have for sale over 200 different patterns and sizes of Plows, of the most approved kinds, and suitable for all kinds of soil, together with the most extensive assortment of Agricultural Implements ever offered for sale in the city of New York, which will be sold at lower prices than they can be obtained at any other establishment. Purchasers will do well to call and examine their stock before purchasing elsewhere. Among the plows advertised will be found J. Mayher & Co's celebrated and unequalled First Premium Eagle D. Plow, without doubt the best and cheapest plow to be had in the United States.

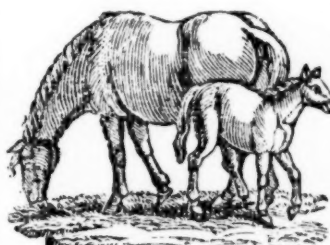
N. B. Castings of all kinds made to order.

New-York, Oct. 1. 1848.—tf.

## Important to the Public.

## HORSE AND CATTLE MEDICINES.

Don't permit your Horses or Cattle to die, when the means of cure are within the reach of all!



THE undersigned has spent several years in the study of Veterinary practice in "London and Edinburgh," he has also availed himself of the researches of Liebig, and other celebrated men, who have contributed so much towards a judicious treatment of animals. The principles of our practice consist in the rejection of general bleeding, and the total rejection of all medicines that experience has shown to be of a dangerous tendency. These remedies act in harmony with the vital principle, and when given according to the directions which accompany each article, they are capable of exciting and increasing the natural functions, without diminishing or destroying their power, hence are safe in the hands of every one.

G. H. DADD, M. D.

## A LIST OF HORSE AND CATTLE MEDICINES.

Physic balls, 75c. per box.

Alternative ball, 75 c. do.

" powders for bad condition, 75c. per package.

Heave powder for diseases of the lungs, 75c. do.

Urine powder for " kidneys, 75c. do.

Tonic powder for bad condition of glanders, 75c. do.

Cordial drink for inflammation of bowels, 75 c. per bottle.

Liquid blister, 75c. per bottle.

Ointment for promoting the growth of hair, 50c. per pot.

Healing balsam for wounds and saddle-galls, 75c. per bottle.

Wash for inflamed eyes, 50c. per bottle.

Ointment for mange, scratches, old sores, &c. 50c. per bottle.

Embrocation for sore throat, 75c. per bottle.

Hoof ointment for sand crack, brittle hoof, &c., 50c. per bottle.

Lorse Liniment, the most celebrated article known in England

for lameness of every description, 75c. and \$1 per bottle.

Distemper powder, for red water, \$1 per bottle.

Worm powders, for the removal of worms from the intestinal canal, 75c. per package.

For sale by STIMPSON & REED, 26 Merchant's Row; also at DADD'S HORSE AND CATTLE MEDICINE DEPOT, Nos. 1 and 2 Hay-market Square, Boston.

Pamphlets describing the diseases for which these remedies are used, can be had gratis.

Numerous Certificates are in possession of the Proprietors, of cures performed by the above medicines. Feb. 1.—3t.

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